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A CATALOGUE
OF THE HESPERIIDAE
FROM EUROPE, ASIA AND AUSTRALIA
IN THE
BRITISH MUSEUM
(NATURAL HISTORY)

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PREFACE

This companion volume to the author's *Catalogue of African Hesperiidae* completes the treatment of the Old World Hesperiidae. It is a continuous key to the groups, genera, species and subspecies which Brigadier Evans recognises, supplemented by diagrammatic sketches of the male genitalia and a number of coloured figures of species not previously illustrated. The key is somewhat unusual in form and the whole work decidedly unorthodox when judged by the standards of other Catalogues published by the Trustees. Nevertheless it follows a pattern which the author has employed most successfully elsewhere, and it is confidently believed that it will enable serious students to name their "Skippers" with the minimum of labour and a great degree of certainty, though dissection of the male genitalia is unavoidable in certain genera.

For the first time the whole of the Hesperiid fauna of Europe, Asia, Africa and Australia, including the East Indies and the Pacific islands, has been competently surveyed by a single author who has applied critically the same standards in assessing the taxonomic values of the morphological characters of all the genera and species occurring throughout this immense area. The recognition of several new genera and many new species and subspecies in the Far Eastern fauna is accompanied by the reduction of not a few palaearctic genera and species to the status of synonyms. The latter action will no doubt be the subject of criticism by palaearctic specialists; yet the consistent application of uniform standards has the great merit of indicating relative values, and allows deductions to be based on strictly comparable units. Brigadier Evans has established a firm base from which more detailed surveys can proceed.

N. D. RILEY

16 *June*, 1949.

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INTRODUCTION

It can be stated with confidence that the collection of Hesperiidae in the British Museum (Natural History) is the most complete in existence in respect of Europe and Asia, while for Australia it is only surpassed by the great collection assembled by Dr. G. A. Waterhouse in the Australian Museum at Sydney. In Appendix A details are given of how this collection has been built up, by means of gifts from explorers or residents abroad, by major or minor bequests and by purchases of large and small collections whenever opportunity offered.

The Hesperiid fauna of the area dealt with comprises 750 species, of which only three (*Celaenorrhinus kiku* Hering, *Pyrgus badachschana* Alberti and *Onryza perbella* Hering) are not represented amongst the 75,000 or more specimens forming the arranged collection. The collection contains 1,065 types of the 1,641 active specific and subspecific names in use, and 436 types of the 1,199 names classed as synonyms, varieties, etc. A few elements of the African fauna have penetrated into S.W. Arabia and were included in the *Catalogue of African Hesperiidae* published by the Trustees in 1938.

The Hesperiidae of the area dealt with in this book may be considered as having been derived from two primary sources, the Palaearctic and the Tropical. The Palaearctic element (*Pyrgus*, *Heteropterus* and *Hesperia* Groups) has well-defined limits, viz.: Europe and North Africa up to the Sahara desert: West Asia as far as the watershed of the Indus: North Asia up to the Himalayas and China. A section of the *Pyrgus* Group (*Spialia* and *Gomalia*), which developed in Africa, south of the Sahara, has extended into India and northern Burma. In China there has been a very considerable development of the Palaearctic element.

The development of the Tropical element in Asia displays a certain similarity to that of the same element in tropical Africa and America. But whereas, due to geographical separation, the Palaearctic and Tropical elements can be readily traced in Asia, they are everywhere intermingled in Africa and America. It is only in China that there is to be found any considerable overlap of the two primary elements.

The present Asiatic tropical fauna may be divided into three well-defined sections, viz.: Oriental, from India and China to the Celebes and Timor: Papuan, from Tenimber and the Moluccas to New Guinea and Australia: Australian, confined to Australia with a slight extension into New Guinea.

The Oriental section contains the greatest number of species. The centre of development may be regarded as an area enclosed by a circle drawn through Tavoy, Hainan, Borneo, Java and Sumatra. Subsidiary developments have taken place in India, S.W. China, the Philippines and the Celebes, while a very minor development (*Isoteinon* Group) has taken place in the Palaearctic region. Many species, especially those of the open country type as opposed to the forest type, have extended from the central area into the subsidiary areas, and vice versa, as well as reaching into the Papuan section and the Lesser Sunda Islands, which seem to be devoid of any particular development of their own.

The Papuan section appears to be little more than a subsidiary development of the Oriental section, with a branch centred in New Guinea and another in Australia. In New Guinea the most intensive development has occurred in the *Taractrocera* Group, which has extended all round the Australian coast. There has also been some development, extending in part to N.E. Australia, in the Coeliadinae and a few other genera (*Chaetocneme*, *Tagiades*, *Notocrypta*, *Prada*, *Tiacellia* and *Borbo*). The Australian branch comprises only the peculiar genus *Euschemon*, where the male has a moth-like frenulum and jugum, three species of *Chaetocneme* and single species in the genera *Netrocoryne* and *Exometoeca*.

The Australian section comprises the Trapezitinae, an isolated subfamily, with no apparent relationship to any other Tropical development. A few members of the subfamily are to be found in New Guinea.

The arrangement of the genera introduced by Watson in 1893 has been generally followed, but I abhor artificial keys to identification and, since it is impossible to frame a straight-line key for an all-directional evolution, it is considered that the best method of presenting an orderly arrangement of the 130 genera of the family is in the form of 13 more or less well-defined natural groups, which are in accord with the development that has been outlined above.

In accordance with modern ideas, as expressed in books such as Mayr's *Systematics and the Origin of Species*, as wide a view as is possible has been taken of a species. Whenever a form in one area can be considered as replacing a form in another area, the two are presumed to be conspecific, even though the differences in facies, structure and genitalia appear considerable. The bringing together of subspecies in this manner presents no great difficulty through the Malay Archipelago and the South Sea islands; for instance, the variations of *Tagiades japetus* can be traced all the way from Ceylon to the Solomons and compared with those of other similar species flying with it. In continental areas, such as China and Malaya, it is not always easy to decide whether two forms flying together are species or overlapping sub-species of the same species. There are difficulties also in the islands. For instance, in Borneo there seem to be unduly numerous forms of the genus *Telicota*, due perhaps to migrations or infiltration from Java, Timor or the Philippines, and it is difficult to decide whether a particular series, differing slightly in genitalia and facies from another series, represents a species or a sub-species or perhaps a migration, which will become submerged in due course by the dominant form in the island.

Names have not been given in the collection to forms of a lower category than species or sub-species: names applicable to varieties, aberrations or generations have, however, been listed. The material for each species has been arranged by localities, working generally from West to East and, wherever possible, by dates of capture.

Certain modifications have been made in the constitution of genera. It is considered that the best guide to the association of species lies in the form of the genitalia and not, as has often been considered as of paramount importance, in the form, or the presence or absence, of secondary sexual characters. But it has to be borne in mind that very remarkable apparent differences in the genitalia do occur between species or even sub-species (e.g. *Pyrgus malvae* and *malvoides*), which, on other grounds, are believed to be congeneric or conspecific. Generally it is considered that a generic definition should differentiate the females as well as the males; if no such differentiation is possible, then the validity of the genus is doubtful.

The International Rules for Zoological Nomenclature have been followed in all but two respects. The author's name has not been placed in brackets, when the genus wherein he placed a species has been altered. The original spelling for generic and specific names has been preserved unchanged. All names published up to 1947 have been included.

In framing the keys I have reverted to the form of key I introduced in my *Identification of Indian Butterflies* (1926 and 1933), because I consider it more compact and easier to use, as well as enabling the index to be used for reference to the coloured plates, the genitalia diagrams and the keys to the genera groups, the genera and the species.

In the Glossary will be found an explanation of the few simple abbreviations that have been used, as well as of the technical terms. It is hoped that the Synopsis of Generic Groups and Genera will prove useful to curators and students.

Only the more important references have been included in Appendix A. Throughout the text the date of publication has been inserted after the author's name, wherefrom the reference to the original publication can be found in the *Zoological Record* or the *Lepidopterorum Catalogus*.

As for the *Catalogue of African Hesperiidae*, the coloured plates have been executed by Miss Dorothy Fitchew, whose work continues to be unsurpassed. An asterisk before a specific or sub-specific name in the text and in the index indicates that a figure will be found in the coloured plates. Only previously unfigured species have been figured.

The diagrams in the Glossary and all the genitalia figures have been drawn by myself and I apologise for their lack of artistic merit. The diagrams have been drawn freehand with the object of indicating the differences between species.

The late Dr. A. S. Corbet assisted me greatly, particularly in helping me to decide difficult problems and in deterring me from following the wrong path on many occasions. Mr. W. H. T. Tams has devoted a great deal of his time to helping me in many ways, particularly in respect of ready answers from his encyclopaedic brain to my many questions, as well as in examining and photographing genitalia.

Finally, I should like to thank the Trustees for permitting me to study the collection and for accepting my work for publication, as well as Mr. N. D. Riley, the Keeper of Entomology, and Mr. A. G. Gabriel, the Assistant Keeper in charge of the Rhopalocera, for having afforded me every possible facility at all times.

GLOSSARY

Abbreviations and Signs

G13/2 is an example of the reference system used throughout the Book, as well as in the Synopsis, the Plates (coloured or uncoloured) and the Index. G is the Group letter (*Astictopterus* Group), 13 the number of the genus (*Pithauria*) in that group, 2 the number of two species (*murdava*) in the genus.

***kumpia.** An asterisk placed before a species or a sub-species in the analyses of species, or in the index, indicates that it is figured in the coloured plates, where it will be found under its reference number. No references are given to the genitalia plates, wherein all species and many sub-species are figured under their reference numbers.

Upf, unf, uph, unh = upperside or underside of the forewing or hindwing.

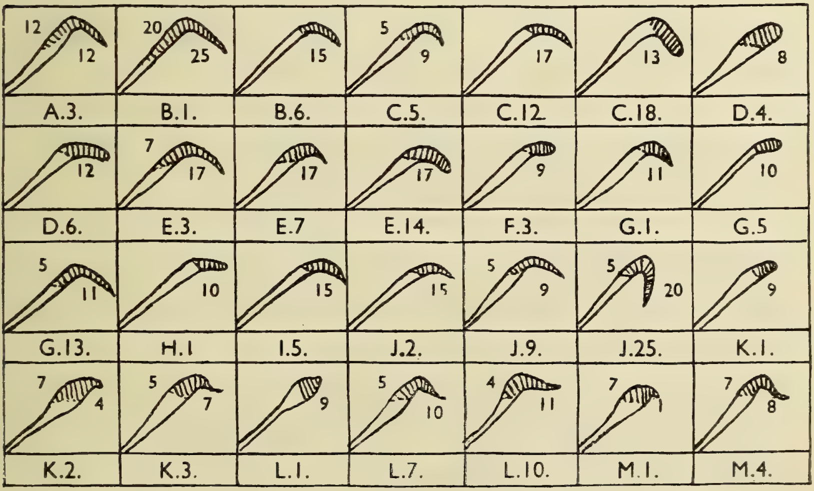
F, H = Fore or Hind, referring to the wings or the legs.

♂ **F 20 mm.** = length of forewing in an average male specimen is 20 millimetres measured from the junction of the wing with the thorax to the apex.

Antennae (with diagram)

The antennae commence with a slender **shaft** expanding to a terminal **club,** which may be straight (D.4), arcuate (C.12), hooked (J.25) or angled (L.7).

The bent-over portion of the club is the **apiculus,** which is usually sharply pointed, but may be blunt (C.18).

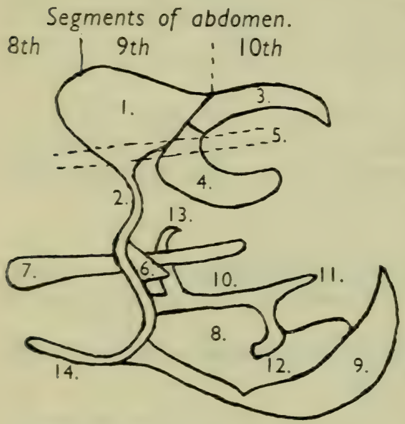


The antennae are made of segments, which, on the shaft and the basal portion of the club, are covered with scaling. But on the apiculus, and sometimes on the distal portion of the club before the apiculus, the segments are bare and furnished with erect sensory hairs. The bared portion of the club is the **nudum,** a term introduced by Evans 1943 (Proc. R. Ent. Soc. Lond. B 12: 97).

The numbers of nudum segments in the club proper and in the apiculus are of taxonomic importance. On the diagram, where a single number is entered, it indicates the total number of nudum segments. Where two numbers are given, the first is the number in the club and the second the number in the apiculus.

Alongside the base of each antenna, in groups other than A (*Coeliadinae*), there will be seen the **eyelash,** a small tuft of hairs turned outwards.

Genitalia of male.



The diagram is schematic: its purpose is to explain the terms used in the book.

The **tegumen** (1) is the tergum of the ninth segment and is attached to the **vinculum** (2), a ring reaching across the abdomen between the eighth and ninth segments.

The **uncus** (3) is the tergum of the tenth segment and is hinged to the tegumen. Seen ventrally it is often divided and may be modified in a variety of ways.

The **gnathos** (4) is the sternum of the tenth segment and is attached to the tegumen or the uncus or to both. It seems more liable to modification than any other part of the genitalia. Sometimes it is absent. Often it is bifid and the two limbs may be bent parallel to the vinculum, or they may be bent back behind the uncus. On the ventral side the gnathos may be furnished with velvet-like pads (*Erionota*) or spined and hollowed (*Pyrgus alveus*), perhaps to guide the aedeagus.

It is often impossible to follow the homology of the dorsal part of the genitalia due to the distortion and fusion of the various components. The **anal tube** (5) passes between the uncus and the gnathos.

Through a **sheath** (6), occasionally modified, in the middle of the vinculum passes the **aedeagus** (7), the end of which is sometimes highly complex (*Ochlodes*).

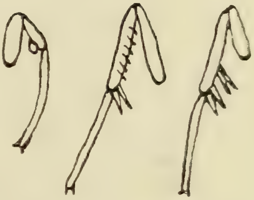
Hinged at the ventral end of either side of the vinculum are the two **clasps,** which with the uncus form the limbs wherewith the male holds the female during copulation. In the diagram the left clasp has been removed. The outside lamina of the clasp is the **valva** (8), whereon on the inside are usually to be found portions of an inner lamina, called the

cuiller (9) and the **harpe** (10). Sometimes (*Pyrgus*) the harpe is produced to form a **style** (11) and an **antistyle** (12): or the harpe may be absent and the valva produced to a style. Sometimes (*Halpe*) the basal end of the harpe is furnished with a **footstalk** (13) wound round the aedeagus.

The end of the vinculum is produced into the abdomen as the **saccus** (14), an anchor for the genitalia as a whole.

In the Genitalia Plates there are generally three figures for each species: (1) ventral view; (2) view from left of the uncus and aedeagus; (3) inside view of the left clasp. If the clasps are asymmetric, an inside view of the right clasp is added.

Legs

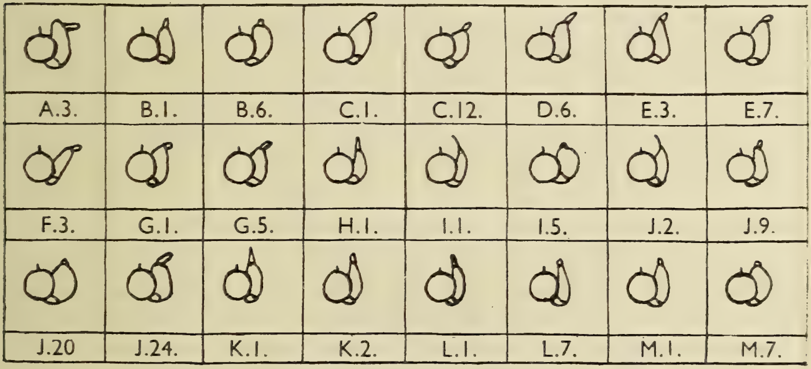


On the inside of the tibia of the foreleg, there is to be found a flap extending from the middle of the tibia to its articulation with the tarsus: this is the "tibial epiphysis" of Watson 1893 (P.Z.S.: 7). The flap is scaled over and difficult to see until the scales have been brushed away. Generally it is fully developed, but in the *Carterocephalus* group it is frequently absent (? fallen off) or present in a minute form against the middle of the tibia.

The mid-tibiae always have a terminal pair of spurs and in some genera a row of spines, conspicuous in *Hesperia*, inconspicuous in *Carterocephalus*. Generally these spines are present in Palaearctic and American Hesperiinae and absent in Oriental groups.

The hind tibiae have two pairs of spurs, but in a few species the upper pair are absent or reduced.

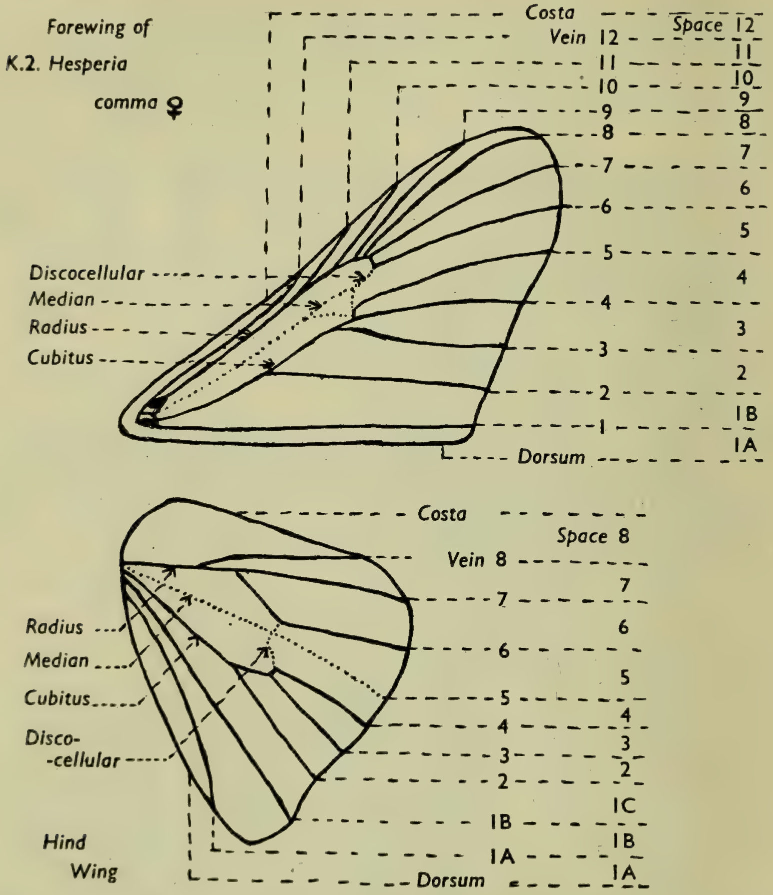
Palpi



The various forms of palpi are shown in the diagram.

The palpi consist of three segments, of which the first two are appressed to the head between the eyes and, being covered with dense scaling, generally appear as a single unit. The third segment is of a different form and protrudes from the end of the second segment, the upper part of which extends above the eye.

There is considerable variation in the size and position of the second and third segments and whether they are **erect** (at right-angles to the line of the body) or **porrect** (in line with the body) is of considerable taxonomic importance. In some cases, e.g. *Hesperia* erect, *Pyrgus* porrect, the difference is obvious, but in many cases this is not so. For examination it is necessary to hold the insect so that the base of the antenna (shown in each diagram) and the centre of the eye are in a vertical alignment.



Secondary sexual characters

These are very varied and are described in the keys.

In the Pyrginae the principal feature is the hair tuft on the male hind tibiae: it may be a recumbent hair pencil outside the leg or an erectile tuft inside entering a pouch projecting from the end of the thorax.

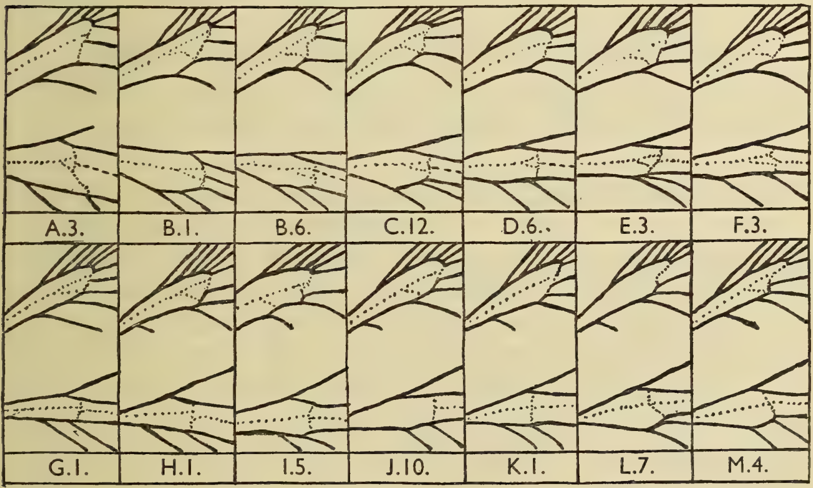
In the Hesperiinae there is often a continuous oblique discal stigma on the upperside of the forewing, or a pouch, or brands along the veins, combined usually with a displacement of a vein.

Venation

The diagrams are self-explanatory. Zeuner 1943 (Ann. & Mag. Nat. Hist. 11/10: 290) gives a table linking the British system, here used, with other systems.

Radius is used here for the vein defining the upper edge of the cell from the base to the origin of vein 6 and **Cubitus** for the lower end of the cell from the base to the origin of vein 4. The **Discocellular** is the "veinlet" defining the end of the cell between the origins of veins 4 and 6. **Median** is used for the veinlet or fold (sometimes invisible) running along the centre of the cell and usually forked before the cell-end.

The arrangement of the veins about the ends of the cells affords features of taxonomic value and the variations are indicated in the diagram below. In all cases female specimens have been used for the figures, as in the male the veins are often displaced or distorted by the secondary sexual characters. It should be remembered that within groups there may be considerable differences in venation.



ANALYSIS OF THE SUBFAMILIES AND GENERIC GROUPS OF THE HESPERIIDAE OF EUROPE, ASIA AND AUSTRALIA

Aa (Ea). Larvae generally on dicotyledons. F vein 5 at its origin tending to be nearer to vein 6 than to vein 4.

A (Ba). Palpi peculiar: second segment erect, third segment porrect, long, slender, awl-like. Wings erect in repose. Abdomen < dorsum.

Subfamily Coeliadinae. Single Group.

Coeliadinae. 5 Oriental genera occurring from India and China to the Marquesas Is. There are 2 genera in Africa. In America the subfamily appears to be replaced by the *Pyrrhopyginae*.

Ba (A). Palpi not as in A.

Subfamily Pyrginae. Three Generic Groups.

Bb (D). H vein 5 straight, but oblique, nearer to vein 4 at termen and to vein 6 at its origin. Wings flat in repose. Abdomen < dorsum.

B (C). Palpi, second segment erect, third segment short, stout, conical. F cell long.

Celaenorrhinus Group. 6 genera, of which one (*Euschemon*) is Australian and peculiar in having a frenulum. One (*Chaetocneme*) is Papuan and is replaced in the Oriental region by an allied genus (*Capila*); there are a number of allied genera in America (*Bungalotis*, etc.). One (*Lobocla*) is Chinese and replaced by another (*Charmion*) in the Oriental region; there is one allied African genus (*Katreus*); in America there is a vast development (*Urbanus*, *Achalarus*, etc.). The last genus (*Celaenorrhinus*) is the only Hesperiid genus which occurs, unchanged as to generic characters, in tropical America, Asia and the Oriental region, but it does not extend to the Papuan region. There are other generic groups in America

(*Phocides*, *Entheus*, etc.) which do not occur in the Old World.

C (B). Palpi, second segment more or less porrect, third often long. F cell generally short.

Tagiades Group. 18 genera, of which two (*Netrocoryne* and *Exometoeca*) are Australian. The remainder are Oriental, but one (*Tagiades*) extends to Australia and Africa and two others (*Sarangesa* and *Caprona*) to Africa. The group has a considerable representation in Africa and a great development in America.

D (Bb). H vein 5 central between veins 4 and 6, but decurved at its origin towards vein 4. Wings erect or flat in repose. Palpi generally long and porrect. Antennal club generally blunt. Abdomen = dorsum.

Pyrgus Group. 6 genera predominantly Palaearctic. Two genera (*Erynnis* and *Pyrgus*) are strictly Palaearctic in the Old World, but in America they extend down to Chili and Brazil. Two (*Muschampia* and *Carcharodus*) are Palaearctic and replaced by two others (*Spialia* and *Gomalia*) in Africa and India. There is one other genus in Africa and there are several in America.

Ea (Aa). Generally on monocotyledons. F vein 5 at its origin tending to be nearer to vein 4 than to vein 6. Abdomen generally = dorsum. Wings erect in repose. ♂ upf often with a brand or stigma and never with hair pencils on the hind tibiae.

E (Fa). H end cell peculiar: median vein forked to the origin of veins 4 and 5: end of cell directed to dorsum.

Subfamily Trapezitinae. Single Group.

Trapezitinae. 16 genera, 12 of which are confined to Australia: one (*Toxidia*) is principally Australian, but extends into New Guinea: 3 are confined to New Guinea. This subfamily might be placed after the *Plastingia* Group, but I do not desire to disturb the arrangement adopted by Australian authors.

Fa (E). H cell normal.

Subfamily Hesperiinae. Eight Generic Groups.

Fb (Ka). Antennal club not constricted before the apiculus.

F vein 5 generally straight at its origin. H lower end of cell usually not upturned, and vein 5 well marked.

Fc (Ha). Palpi, second segment more or less porrect.

F (G). H cell unusually long, longer than half-wing. Palpi long, porrect, hairy. Legs tend to be abnormal. Antennae arcuate or obtuse, club blunt. Wings broad.

Heteropterus Group. 5 genera, predominantly Palaearctic. One (*Heteropterus*) is confined to Europe and N. Asia and another (*Leptalina*) to N. China: they have allies in Africa and there is a remarkable genus in Chili. *Carterocephalus* has the same range as *Heteropterus*, but it has a considerable development in S.W. China, extends to N. America and there are allied genera in Africa, Madagascar and Central and South America. The last two genera (*Barca*, *Apostictopterus*) are confined to S.W. China and are perhaps more nearly related to the next Group.

G (F). H cell not longer than half the wing. Palpi and antennae of various forms. ♂ often with glandular secondary sexual characters.

Astictopterus Group. 13 Oriental genera with a considerable development in China. One genus (*Ampittia*) extends to Africa, where there are several allied genera. The Group appears to be absent East of the Celebes and in America.

Ha (Fc). Palpi, second segment erect.

H (Ia). Antennal apiculus short and blunt. H vein 5 central. Palpi third segment erect, pointed, short.

Isoteinon Group. 3 genera, representing the Palaearctic development of the next two groups. One genus (*Isoteinon*) is Chinese, another (*Eogenes*) flies from Asia Minor to Chitral and Baluchistan, while the third (*Actinor*) is only found in the N.W. Himalayas.

Ia (H). Antennal apiculus finely pointed. Palpi may have the third segment long and acicular, or short, stout and conical.

I (J). H vein 5 decurved at origin. Wings generally broad. A compact group, but difficult to define.

Ancistroides Group. 7 Oriental genera, one of which (*Notocrypta*) extends to the Papuan region and closely resembles members of the Pyrgine genus *Celaenorrhinus*.

There is a considerable development in Africa and America.

J (I). H vein 5 not decurved at origin. Wings often much produced and in some genera the antennae very long.

Plastingia Group. 26 genera, all Oriental except for the last two (*Tiacellia*, *Prada*), which appertain to New Guinea and are related to the *Trapezitinae*. There is a considerable development of this Group in Africa and America.

Ka (Fb). Antennal club more or less constricted before the apiculus, which is whip-like, but may be absent. F vein 5 generally decurved at origin. H lower end of cell upturned and vein 5 usually not traceable: tornus more or less produced and vein 1A usually as long as vein 2. ♂ upf often with a discal stigma.

Kb (M). Prevailing colouring yellow or orange.

K (L). Mid tibiae spined.

Hesperia Group. 3 Palaearctic genera, which extend to America, but are absent in Africa and the Oriental region.

L (K). Mid tibiae smooth.

Taractrocera Group. 14 genera of perhaps Oriental origin, but with a great development in the Papuan region. There is only one genus in Africa, but in America there are many genera, which are difficult to separate from the *Hesperia* Group.

M (Kb). Prevailing colouring brown, mid tibiae spined or unspined.

Gegenes Group. 8 genera, perhaps of Oriental origin but with extensions into China and the Mediterranean region. There is a considerable development in Africa and America, in which latter continent are to be found the wood-boring *Megathyminae*, a subfamily allied to the *Gegenes* Group.

SYNOPSIS OF GENERA

Numbers of species in brackets after name of genus

A. COELIADINAE

1. Bibasis (16)
2. Allora (2)
3. Hasora (27)
4. Badamia (2)
5. Choaspes (6)

PYRGINAE

B. Celaenorrhinus

1. Euschemon (1)
2. Chaetocneme (12)
3. Capila (9)
4. Lobocla (7)
5. Charmion (1)
6. Celaenorrhinus (32)

C. Tagiades

1. Netrocoryne (2)
2. Tapena (1)
3. Darpa (3)
4. Odina (2)
5. Coladenia (12)
6. Sarangesa (2)
7. Satarupa (7)
8. Seseria (6)
9. Pintara (2)
10. Chamunda (1)
11. Daimio (7)
12. Tagiades (12)
13. Mooreana (2)
14. Abraximorpha (2)
15. Exometoeca (1)
16. Ctenoptilum (2)
17. Odontoptilum (3)
18. Caprona (3)

D. Pyrgus

1. Erynnis (4)
2. Gomalia (1)
3. Carcharodus (5)
4. Spialia (7)
5. Muschampia (8)
6. Pyrgus (19)

E. TRAPEZITINAE

1. Vlasta (1)
2. Felicena (2)
3. Trapezites (11)
4. Anisyntoides (1)
5. Anisynta (6)
6. Oreisplanus (2)
7. Dispar (1)
8. Hewitsoniella (1)
9. Toxidia (10)
10. Hesperilla (10)
11. Neohesperilla (4)
12. Signeta (2)
13. Pasma (2)
14. Motasingha (2)
15. Mesodina (2)
16. Croitana (1)

HESPERIINAE

F. Heteropterus

1. Leptalina (1)
2. Carterocephalus (13)
3. Heteropterus (1)
4. Barca (1)
5. Apostictopterus (1)

G. Astictopterus

1. Astictopterus (1)
2. Arnetta (4)
3. Ochus (1)
4. Baracus (1)
5. Ampittia (6)
6. Aeromachus (11)
7. Sebastonyma (2)
8. Sovia (6)
9. Pedesta (6)
10. Onryza (4)
11. Thoressa (19)
12. Halpe (25)
13. Pithauria (3)

H. Isoteinon

1. Isoteinon (1)
2. Eogenes (2)
3. Actinor (1)

I. Ancistroides

1. Iambrix (5)
2. Koruthaialos (4)
3. Psolos (1)
4. Stimula (1)
5. Ancistroides (6)
6. Notocrypta (11)
7. Udaspes (2)

J. Plastingia

1. Scobura (7)
2. Suada (3)
3. Suastus (4)
4. Cupitha (1)
5. Zographetus (4)
6. Oerane (1)
7. Hyarotis (3)
8. Quedara (5)
9. Isma (11)

10. Plastingia (24)
11. Lotongus (4)
12. Zela (4)
13. Gangara (3)
14. Erionota (7)
15. Ilma (1)
16. Ge (1)
17. Matapa (6)
18. Pudicitia (1)
19. Unkana (3)
20. Hidari (3)
21. Eetion (1)
22. Acerbas (5)
23. Pirdana (3)
24. Cyrina (1)
25. Prada (3)
26. Tiacellia (1)

K. Hesperia

1. Thymelicus (8)
2. Hesperia (1)
3. Ochlodes (12)

L. Taractrocera

1. Taractrocera (14)
2. Ocybadistes (5)
3. Suniana (3)
4. Oriens (8)
5. Potanthus (26)
6. Arrhenes (7)
7. Telicota (22)
8. Cephrenes (5)
9. Prusiana (3)
10. Pastria (2)
11. Banta (3)
12. Kobrona (14)
13. Sabera (11)
14. Mimene (15)

M. Gegenes

1. Gegenes (2)
2. Parnara (4)
3. Borbo (4)
4. Pelopidas (9)
5. Polytremis (11)
6. Baoris (5)
7. Caltoris (17)
8. Iton (2)

Total. 4 Subfamilies. 13 Generic Groups. 130 Genera. 750 Species.

ANALYSIS OF GENERA

A. Subfamily COELIADINAE

The *Coeliadinae* are easily recognised by the peculiar palpi. They are a compact group with no near relatives. They are confined to the Old World and are replaced in America by the *Pyrrhopyginae*.

Antennae = or < ½ costa; club slender and long, sometimes nearly as long as the shaft; apiculus long, arcuate, sharply pointed; nudum 25–36. Eyelash absent.

Palpi peculiar: second segment stout, erect, appressed to face; third segment long, porrect, not tapered, blunt.

Legs: mid tibiae spined in *Allora*, otherwise normal, except that one of each pair of spurs is longer than its twin.

Wings with rounded termens; hindwing lobed and sometimes prolonged at tornus. Body shorter than dorsum. Wings held erect in repose. Uph often with a tuft of hairs before tornus.

Forewing, cell long; vein 5 mid veins 4 and 6; vein 2 rising near base; vein 3 usually decurved towards vein 2.

Hindwing vein 5 more or less tubular centrally, oblique, nearer to vein 4 at the termen and to vein 6 at origin.

Secondary sexual characters: some species have a broken discal stigma upf, others have brands along the veins, accompanied by the displacement of vein 3 towards vein 2. In some genera there is a recumbent hair pencil on the hind tibiae, which may be swollen; some have a mobile tuft on the hind tibiae in conjunction with a thoracic pouch, as in many of the *Pyrginae*.

Larvae bright coloured and feed on dicotyledons.

1a (4a). F cell < dorsum.

1b (3). F vein 1 gently bisinuate.

1 (2). Mid tibiae not spined. ♂ hind tibiae appearing to be swollen because of the presence, at the back, of a brown hair pencil entirely covered by shining white scales. ♂ upf with a discal stigma or brands along the veins in some species, accompanied by the decurving of vein 3,

which sometimes is to be seen even when the stigma or brands are absent. Usually no hyaline spots upf.

Bibasis. 16 species, India and China to Celebes and Timor.

2 (1). Mid tibiae spined. H dorsum curved. Uph tuft at tornus conspicuous. Above black with brilliant green or blue bases; no hyaline spots. No secondary sexual characters.

Allora. 2 species, Moluccas, New Guinea area and N. Australia.

3 (1b). F vein 1 acutely bisinuate near base. ♂ of several species upf with a stigma or brands along the veins: in most species vein 3 is decurved. H generally prolonged at tornus. Often with hyaline spots upf.

Hasora. 27 species. India and China to New Hebrides and Australia.

4a (1a). F cell = or > dorsum.

4 (5). F cell > dorsum, very narrow and elongate. ♂ hind tibiae furnished with an erectile tuft fitting into a double pouch at end of thorax. Antennae very short. Abdomen striped. Brown with hyaline white spots upf.

Badamia. 2 species. India to Australia and Marquesas Is.

5 (4). F cell = dorsum. ♂ hind tibiae with a long recumbent hair pencil enclosed by a comb of dark hairs; also an erectile tuft fitting into a double thoracic pouch. ♂ of one species has on upf and uph brands between the veins. Above more or less blue or green, without hyaline spots, and on H the tornus is broadly, more or less, orange or yellow.

Choaspes. 6 species. India and China to New Guinea.

B. Celaenorrhinus Group

A group linked together on account of the erect palpi. It contains few members in the Old World, but in America there has been a great development and the species will require arrangement in several groups. *Euschemon* has been elevated to subfamily or family rank or placed with the moths by various authors, because it possesses a frenulum and jugum. This feature, however, is confined to the male, and the early stages, resting position, structure in many respects, all indicate a close relationship with *Chaetocneme*. The tubularity of vein 5 of the hindwing would seem to be a subfamily or main group character, but in America it breaks down in genera such as *Dyscophellus*, *Nascus* and *Bungalotis*, which are obviously related to *Chaetocneme* and *Capila*, while the similarity between some species of these two genera and some of the genus *Calaenorrhinus* is a pointer not to be lightly ignored.

Antennae moderate to very long in *Euschemon*: with a well-defined, pointed apiculus, which may be arcuate, obtuse or hooked and sometimes very long. Nudum varies from 13 to over 40 in *Euschemon*.

Palpi, second segment slender, erect; third segment stout, usually short and bent down.

Legs abnormal in first 3 genera; normal in the rest.

Wings broad. Body = dorsum in first and last 2 genera; < in remainder. Wings held flat when at rest.

Forewing cell generally long, except in *Capila*: vein 5 straight, mid veins 4 and 6.

Hindwing vein 5 always well marked, tubular in first 3 genera and in the rest appearing as a narrow slit uph; it is always straight and oblique, nearer to vein 4 at the termen and to vein 6 at its origin.

Secondary sexual characters. Peculiar in *Euschemon*, where in addition to the presence of a jugum and frenulum, there is a long grey brand along vein 1b. In *Chaetocneme* and *Capila* the hind legs are modified as described below; sometimes a costal fold is present and in one species of *Capila* there is a hair tuft at the tornus uph. In *Lobocla* there is a costal fold. The last 2 genera usually have the Pyrgine feature of a hair pencil on the hind tibiae fitting into an elongated double pouch at the end of the thorax.

Facies too varied for generalisation. The eyes are red in some species of *Chaetocneme* and *Capila*.

1a (4a). H vein 5 tubular. Generally large.

1 (2a). Mid and hind tibiae spined, latter with upper pair of spurs absent. Antennae long, apiculus long; nudum 20/20. Black with yellow (rarely white) hyaline spots on both wings; abdomen striped; palpi and anus red. ♂ with a jugum and frenulum; unh broad grey brand along vein 1b.

Euschemon. 1 species. Queensland.

2a (1). Mid and hind tibiae smooth.

2 (3). Antennae = $\frac{1}{2}$ costa in ♂; nudum 5/17 to 10/19. F cell long, at least = dorsum; origin vein 4 mid veins 3 and 6. Rufous to dark brown; F plain or with a white or yellow band or spots; H may be inconspicuously spotted or have the termen more or less orange. ♂ often with a costal fold. ♂ hind tibiae with the upper spurs often more or less obsolete and the lower pair unequal: at the back with a hair pencil longer than tibia, also a long tuft on the femur; from the lower spurs along the tarsus there is a double row of long spines diminishing to the middle of the tarsus. In 2 species (*antipodes* and *porphyropis*) the ♂ hind leg is not modified. Clasp of genitalia undivided.

Chaetocneme. 12 species. New Guinea, Australia, Bismarcks.

3 (2). Antennae < $\frac{1}{2}$ costa: nudum from 0/18 or 4/13 to 2/21 or 8/17. F cell long, but usually < dorsum: vein 4 mid veins 3 and 5. Rufous to dark brown: forewing usually with a white band or spots: in 3 species ♂ is striped: in 1 species ♂ is mostly white with black spots uph. ♂ with a costal fold in some species. ♂ hind tibiae more or less swollen: spurs unequal and the longer spur may be very stout: a dense hair pencil at the back of the tibiae. ♂ of one species (*pennicillatum*) has a projecting hair tuft at the end of vein 1a uph. Clasp large and trifid.

Capila. 9 species. N. India and China to Borneo.

4a (1a). H vein 5 not tubular, marked as a narrow slit uph.

4 (5a). Antennae arcuate: nudum 20. Palpi, third segment rather long. Above brown with hyaline white spots,

which are sometimes banded together centrally: unh with dark markings. ♂ upf with a costal fold: legs without a tibial hair pencil. Uncus undivided, tapered.

Lobocla. 7 species. China, N. India and N. Burma.

5a (4). Antennae obtuse, nudum 14. ♂ no costal fold: hind tibiae usually with a hair pencil fitting into a double pouch at the end of the thorax. Uncus divided.

5 (6). F costa angled at the end of vein 11. Unmarked except for a compact hyaline white or orange central band upf. Palpi and leg tuft yellow.

Charmion. 1 species. N. India to Moluccas.

6 (5). F costa evenly arched. Typically brown with hyaline white spots upf and tawny spots uph and unh: antennae often white. Some species are white or yellow banded upf. The ♂ of one species is almost unmarked black.

Celaenorrhinus. 32 species. India and China to Celebes. The genus also occurs in tropical Africa and America.

C. Tagiades Group

The group is well defined by the porrect palpi and the antennal club, which is not flattened or twisted as in the *Pyrgus* group. It is here divided into 3 subgroups, which seem reasonably well defined. The group also occurs throughout tropical Africa and tropical America.

Antennae short to moderate: apiculus hooked, arcuate or obtuse, and pointed, except in the *Caprona* group, where it is blunt and usually bent at the beginning of the stout club, rather as in the American *Pyrrhopyginae*.

Palpi, second segment slender, porrect: third segment stout and blunt, in continuation of the second segment or bent down: sometimes the third segment is long and occasionally pointed.

Legs normal.

Wings more or less irregular. The forewing is sometimes truncate in the first and last groups. The hindwing is angled at vein 3 very often in the first group, giving the wing a quadrate appearance. In the last group the hindwing is angled at the ends of veins 7 and 4. Abdomen < dorsum hindwing.

Forewing cell generally short, but long in *Netrocoryne* and *Satarupa*; in the latter genus the upper end is produced. The cell tends to be curved in the *Tagiades* subgroup, recalling *Erynnis* in the *Pyrgus* group. Vein 5 always nearer to vein 6: vein 2 nearer to the base than to the end of the cell.

Hindwing cell = ½ wing. Vein 5 well marked as a slit uph and generally oblique, nearer vein 4 at the termen and to vein 6 at its origin, where it is not decurved.

Secondary sexual characters. A costal fold is only present in *Netrocoryne*. Many species have a recumbent hair tuft on the hind tibiae, while *Mooreana* also has a tuft on the mid tibiae and some of the *Caprona* group have long hair pencils from the fore coxae lying under the thorax, and the scapulae are prolonged to fit in a groove uph.

Facies too varied for generalisation.

1a (16a). Apiculus tapered to a fine point. F vein 12 usually ending over end cell.

1b (7a). Club angled or hooked to apiculus beyond the thickest part of the club. Antennae = ½ costa F.

Netrocoryne Subgroup

1 (2a). F cell long = dorsum. Apiculus long, nudum 9/16 to 12/12. Palpi long. F produced, truncate at apex. H quadrate, produced at end of vein 3. Brown with hyaline spots upf and in the cell uph of one species. ♂ with a costal fold upf and in one species with a recumbent hair pencil on the hind tibiae.

Netrocoryne. 2 species. Australia, New Guinea.

2a (1). F cell < dorsum F. ♂ upf no costal fold.

2 (3a). Nudum long 5/15. F truncate and hindwing more or less angled at end of vein 3. ♀ brown with hyaline spots upf and in cell uph: in the blacker ♂, often only the apical spots of upf remain, and there are 2 dark bands upf. ♂ with recumbent hair pencil on the hind tibiae.

Tapena. 1 species. India and Ceylon to Borneo.

3a (2). Nudum not more than 16 segments.
3b (5a). H produced at tornus, dorsum > costa. Nudum 5/8 to 5/11. ♂ without a tibial hair pencil.
3 (4). H cilia at tornus elongate, particularly in ♂. Dark brown: upf with small hyaline spots: uph with a broadly pale yellow or white tornal area. ♀ with anal tuft.
Darpa. 3 species. N. India to Borneo.

4 (3). H cilia at tornus not elongate. Above orange with black spots or cut into geometrical figures by black lines. ♀ with an anal tuft in one species. Uncus widely divided.
Odina. 2 species. N. India to Celebes.

5a (3b). H not produced at tornus, dorsum not > costa.
5 (6). H dorsum = costa. Nudum 4/12. Above tawny, brown or grey: upf with large hyaline spots and uph with more or less prominent dark spots or hyaline in some Chinese species. ♂ with a recumbent hair pencil in most species on the hind tibiae. ♀ with an anal tuft in some species.
Coladenia. 12 species. India and China to Celebes and Philippines.

6 (5). H dorsum < costa. Nudum 3/9. Dark brown: upf with small separated hyaline spots: uph with obscure dark markings. ♂ with a recumbent tuft on the hind tibiae.
Sarangesa. 2 species. India, Burma, Indo-China. A number of species in Africa.

7a (1b). Club arcuate or obtuse from the thickest part.

Tagiades Subgroup

7b (11a). Apiculus long: nudum 20.
7c (9a). H dorsum > costa. Uph generally with large central white area and upf with hyaline spots.
7 (8). ♂ with a recumbent hair pencil on the hind tibiae. Palpi below yellow. F upper end of cell produced. Uncus tapered to a blunt point. ♀ without an anal tuft. Large insects.
Satarupa. 7 species. N.E. India and China to Sumatra.

8 (7). ♂ without a hair pencil on the hind tibiae. Palpi below white. Uncus end like a broad and flattened mushroom. ♀ with an anal tuft. F cell not produced. Upf no cell spot.

Seseria. 6 species. N. India to Java and Borneo.

9a (7c). H dorsum not > costa. Upf with hyaline spots. ♀ with anal tuft. ♂ with hair pencil on hind tibiae.

9 (10). H dorsum = costa. Uph mostly orange, with black spots. Uncus tapered to a point.

Pintara. 2 species. S.E. China and Burma to Borneo.

10 (9). H dorsum < costa. Uph plain brown. Appearance of *Celaenorrhinus*, but apical spots upf very irregular. Uncus ending in a narrow mushroom.

Chamunda nov: type *Plesioneura chamunda* Moore. 1 species. N. India to Burma.

11a (7b). Apiculus shorter, nudum not exceeding 16 segments.

11b (13a). H dorsum not < costa, vein 1a = or > vein 8.

11 (12). ♂ with a recumbent hair pencil on the hind tibiae. Generally upf with large hyaline spots and uph with a pale central area. Uncus undivided. ♀ with anal tuft in one species.

Daimio. 7 species. India and China to Celebes.

12 (11). ♂ without a hair pencil on hind tibiae. Generally uph with small hyaline spots and uph tornally, not centrally, white. ♀ with anal tuft.

Tagiades. 12 species. India and China to Australia and Solomons. Species occur in Africa and Madagascar.

13a (11b). H dorsum = costa, vein 1a much shorter than vein 8.

13b (15). H costa normal, not produced at apex. Palpi short.

13 (14). ♂ with a recumbent tuft on the hind tibiae and also on the mid tibiae. Upf with numerous small hyaline spots: uph tornus broadly orange, yellow or white.

Mooreana, 2 species. N.E. India to Borneo and Philippines.

14 (13). ♂ with a recumbent hair tuft on the hind tibiae in one species. Upf dark brown with very large white spots: uph white with very large dark spots.
Abraximorpha. 2 species. China, Formosa, Indo-China.

15 (13b). H costa produced at apex, longer than dorsum forewing. Palpi very long, longer than head. ♂ no secondary sexual characters. Above ochreous brown with small hyaline spots upf.
Exometoeca. 1 species. S.W. Australia.

16a (1a). Apiculus blunt: nudum 14–17. Antennae short, < ½ costa. Palpi long. Apex F truncate to end of vein 4. H produced at ends of veins 7 and 4. F vein 12 ending well before end cell. Uncus tapered and undivided.

Caprona Subgroup

16 (17a). Apiculus arcuate and tapered. ♂ with a recumbent hair pencil on the hind tibiae. Brown, both wings with numerous hyaline spots.
Ctenoptilum. 2 species. N.E. India to Burma and China.

17a (16). Apiculus stout, untapered. ♂ with a hair pencil from the fore coxae lying against the centre of the thorax. ♀ with dense anal tuft. ♂ genitalia asymmetric in the uncus and the clasps.

17 (18). ♂ hair pencil on fore coxae short, dense and brown, concealed by clothing of pectus. ♂ scapulae are more or less prolonged and in one species form a hair pencil fitting into a groove between veins 1a and 1b near base uph. H tornal cilia elongate. Brown: upf with dark areas and hyaline spots small or absent: uph variegated with white lines or areas.
Odontoptilum. 3 species. India and China to Philippines.

18 (17). ♂ hair pencil on fore coxae very long, thin, black and conspicuous. There are two forms of facies: dark and more or less variegated with pale areas: white or pale yellow with numerous dark spots. The two forms may be referable to 2 species or be seasonable forms of the same species, so that a genitalia examination is often needed for identification.

Caprona. 3 species. India and Ceylon to Celebes and Timor. 2 species occur in Africa.

D. Pyrgus Group

This Palaearctic section of the *Pyrginae* is easily recognisable. Only one species extends a little way into the Oriental region, but like the *Heteropterus* group it has extended into tropical Africa and America. It can best be defined by the blunt, flattened antennal club, which is slightly twisted so that the broadest part faces half forwards and half downwards. In the Old World the genus *Erynnis* can well be included in the same group as *Pyrgus*, but in America the peculiar type of genitalia is found in a number of allied genera and *Erynnis* may be held to appertain to a group separate from *Pyrgus*. The genera are clear cut, but *Carcharodus* and *Muschampia* contain discordant elements and have by some authors been divided into a number of genera.

Antennae short, straight or arcuate, flattened and twisted: nudum 8 to 16.

Palpi, second segment porrect, hairy: third short, protruding, stout and somewhat bent down.

Legs normal, except that in one species the mid tibiae are spined.

Wings broad, margins convex. Termen hindwing sometimes sinuous and the cilia crenulate. Abdomen generally = dorsum.

Forewing cell < dorsum: end straight: vein 2 generally nearer base than end cell.

Hindwing cell about = $\frac{1}{2}$ costa, end straight: vein 1a < or = vein 8: vein 2 well before vein 7: vein 5 generally well marked, central between veins 4 and 6, usually decurved at origin.

Secondary sexual characters often present as a costal fold upf: brush unf: hair pencil on hind tibiae entering a double pouch at end of thorax.

Facies varied. Most of the species have white spots on both wings, which are more or less clothed with white hairs.

1 (2a). F costa strongly arched at base: cell curved and of much the same width from vein 2 to the end. H apex produced and angled at end of vein 7. Antennae short, club arcuate, compressed at end; nudum 12–14. Above dingy; upf more or less grey-scaled, crossed by two dark bands and sometimes with apical and submarginal pale dots. Uph may be yellow or white spotted and unh also. ♂ upf with or without a costal fold. Legs fringed. Genitalia with complex uncus and asymmetric clasps.

Erynnis. 4 species. Europe to China and N.W. India. Many species occur in America.

2a (1). F costa straighter: cell not curved, widening throughout. H apex rounded to end of vein 6. Palpi shorter.

2b (4a). Upf white spots in cell, spaces 2 and 3 and at apex hyaline. Above marbled: upf with irregular alternating pale and dark areas and no trace of submarginal spots. ♂ with costal fold. Legs fringed.

2 (3). H not conspicuously crenulate, nor cilia F and H conspicuously chequered. Antennal club straight, nudum 9. Upf spots inconspicuous: uph with a compact central white band.

Gomalia. 1 species. India, Arabia. The same species with more produced wings flies throughout Africa.

3 (2). H conspicuously crenulate and cilia F and H conspicuously chequered. Antennal club slightly bent, nudum 11. ♂ unf in 3 species with a dense brush towards base under cell.

Carcharodus. 5 species. N. Africa and Europe to Central Asia and N.W. India.

4a (2b). Upf white spots not hyaline. Above white spotted and cilia chequered F and H.

4b (6). Upf with a more or less well-marked complete submarginal series of small spots: in the discal series of spots there are usually none in spaces 4 and 5 and, if present, they are contiguous to the spots in spaces 6 to 8. ♂ without a hair tuft on the hind tibiae.

4 (5). Upf the central cell spot placed before the origin of vein 3 and the spot in space 2 is central between the spot in space 3 and the cell spot or nearer the former. Antennal club straight, nudum 10. H not crenulate. ♂ no costal fold upf.

Spialia. 7 species. N. Africa and S. Europe to India. One Indian species (*zebra*) extends to Africa, where there are 20 other species, of which 4 (*mangana*, *mafa*, *spio* and *diomus*) extend to S. Arabia (Aden, Yemen).

5 (4). Usually upf the central cell spot has its centre against the origin of vein 3: where this is not so, it will be found that the cell spot overlaps the spot in space 2, which latter spot is always nearer to the cell spot than to the spot in space 3. Antennal club variable, straight or bent, nudum 8 to 14. One species has the mid tibiae spined. H more or less crenulate. ♂ upf usually with a costal fold.

Muschampia. 8 species. N. Africa and S. Europe to W. India, and through C. Asia to N. China.

6 (4b). Upf submarginal spots absent (faint and incomplete in a few species): in the discal series the spots in spaces 4 and 5 are present (except in melanic forms) and are completely detached, nearer the termen, from the spots in spaces 6 to 8. Antennal club arcuate, nudum 8 to 12. ♂ upf with a costal fold in all but one species: hind tibiae with a hair pencil fitting into a double thoracic pouch. Clasp with a style.

Pyrgus. 19 species. Europe to N. India and China. 1 European species extends to N. America, where 13 other species occur throughout that continent and in the W. Indies.

E. Subfamily Trapezitinae

The peculiar form of the end of the hindwing cell serves to define this subfamily, which is confined to Australia except for a minor infiltration into New Guinea. The analysis given below follows the classification used by Dr. G. A. Waterhouse, who made a special study of the *Hesperiidae* of Australia. His classification does not altogether accord with that of the rest of this book, but there is nothing to be gained by altering the work of a well-known and competent authority. The genera are reasonably well defined.

Antennae = about ½ costa. There is a great deal of variation in the form of the antennal club and the apiculus, and this is the principal feature for the separation of the genera. But even in the genus *Trapezites* the variation is remarkable. The nudum varies from 12 to 26.

Palpi, second segment rather slender, may be erect, flattened and appressed to the face, or it may be porrect, or midway between these extremes: third segment short, rather stout and pointed bluntly, always bent down and protruding.

Legs normal, except for the absence of the upper pair of spurs on the hind tibiae of the last two genera.

Wings generally broad. Abdomen = or > dorsum: often long and heavy in females, moth-like.

Forewing cell moderate, < dorsum: end cell oblique: vein 5 straight, sometimes nearer to vein 6 than to vein 4, decurved in a few species towards vein 4 at origin. The median vein more or less well marked and forked to between origins of veins 3 and 4.

Hindwing, end cell venation peculiar, the lower angle is upturned, the end of the cell is directed to the dorsum, instead of to the tornus or termen as usual and the median vein has a branch to the origin of vein 4, instead of to well above that point. Vein 5 is always well marked, at the termen central between veins 4 and 6, nearer to vein 6 at its origin, where it is often decurved.

Secondary sexual characters. ♂ upf often with a discal stigma.

Facies. The typical pattern consists of conspicuous ochreous spots upf and an ochreous area uph: unh with small dark spots, which may be silver centred. But there are many departures from the normal.

1a (8a). Antennal club bent more or less in middle to form the apiculus.
1b (5a). Club angled. Palpi mostly erect.
1c (3a). Apiculus as long as or longer than the club.
1 (2). F origin of vein 2 nearer base than end cell. Nudum 9/17. Above black with iridescent blue bases. ♂ upf no stigma.
Vlasta. 1 species. New Guinea area.

2 (1). F origin of vein 2 nearer end cell than base: vein 5 decurved. Nudum 9/14. Uncus and gnathos bifid. Dark brown with small hyaline spots upf: cilia H white: unh in ♂ of one species with a large white spot below cell. ♂ upf with a discal stigma.
Felicena. 2 species. New Guinea area.

3a (1c). Apiculus shorter than club. F vein 2 nearer base than end cell. ♂ upf no discal stigma. Nudum 13 to 26 and apiculus very variable, from long and pointed to short and blunt.
3 (4). H costa not > dorsum F. Typically marked.
Trapezites. 11 species. Australia.

4 (3). H costa > dorsum F. Unh with silver streaks and spots. Cilia chequered. Nudum 6/12.
Anisyntoides. 1 species. W. Australia.

5a (1b). Club arcuate. F vein 2 nearer end cell than base. Palpi long and porrect.
5b (7). H costa > dorsum F.
5 (6). Antennal club short and stout: nudum 13. ♂ upf with a stigma in 2 species. Upf markings small; uph plain.
Anisynta. 6 species. Australia.

6 (5). Antennal club long; nudum 16 to 17. Above black with conspicuous orange markings F and H. Unh yellow with black spots and streaks. ♂ without stigma upf.
Oreisplanus. 2 species. S.E. Australia.

7 (5b). H costa not > dorsum F. Nudum 16, much flattened. Upf with hyaline white markings; uph with a central band of hyaline white spots in ♂, but in ♀ with a pale yellow, opaque central area. ♂ upf with a stigma.
Dispar. 1 species. S.E. Australia.

8a (1a). Club bent at, or shortly after, its commencement to form the apiculus. Palpi generally porrect.
8b (13a). Apiculus tapered to a fine point.
8 (9a). F vein 2 nearer base than end cell: vein 5 decurved. H cell short, < ½ wing. Apiculus long, nudum 23. Upf with small apical and large adjoining central hyaline spots, yellow in ♂, white in ♀. Unh variegated with pale and dark areas. ♂ upf no stigma.
Hewitsoniella. 1 species. New Guinea area.

9a (8). F vein 2 not nearer base than end cell: vein 5 not decurved.
9b (12). ♂ upf with a linear stigma. ♀ forewing vein 1 straight.
9c (11). Unh not overlaid ochreous scales: grey or brown.
9 (10). Uph plain brown: upf markings usually small, particularly in ♂. Nudum 13 to 24.
Toxidia. 10 species. Australia and New Guinea.

10 (9). Uph with more or less conspicuous tawny area: upf usually with conspicuous markings. Nudum 18.
Hesperilla. 10 species. Australia.

11 (9c). Unh overlaid yellow or greenish scales. Nudum 18 to 20. H prolonged; costa F < dorsum H. Marked upf as *Hesperilla*, but uph in 3 species have small hyaline spots.
Neohesperilla. 4 species. N. Australia.

12 (9b). ♂ upf with a quadrate brand. ♀ F vein 1 bisinuate. Apiculus long, nudum 23.
Signeta. 2 species. S.E. Australia.

13a (8b). Apiculus blunt, barely tapered.
13b (15a). Hind tibiae with 2 pairs of spurs, as usual.
13 (14). ♂ upf no stigma. Small, F $<$ 15 mm. Nudum 16 to 19. Upf with small white markings: uph plain or with one or two hyaline spots.
Pasma. 2 species. Australia.

14 (13). ♂ upf with a stigma. Forewing $>$ 15 mm. Nudum 16 to 19.
Motasingha. 2 species. Australia.

15a (13b). Hind tibiae without the upper pair of spurs. ♂ upf without a stigma.
15 (16). Nudum 15. Uncus long, narrow, pointed. Uph plain.
Mesodina. 2 species. Australia.

16 (15). Nudum 12. Uncus short, broad and divided. Uph with a broad orange area and upf with broad orange markings.
Croitana. 1 species. W. Australia.

F. Heteropterus Group

A strictly Palaearctic group as far as Asia is concerned, but widely spread throughout Africa and America. Easily separated by the long hindwing cell, the porrect palpi, short blunt antennae and broad wings. *Barca* and *Apostictopterus* lead over to the *Astictopterus* group and are perhaps more nearly related thereto.

Antennae short or very short: club blunt ended, straight, arcuate or obtuse; nudum 6 to 10.

Palpi long, porrect and hairy.

Legs abnormal: fore tibiae with the epiphysis often absent, or feebly developed: mid tibiae often spined: hind tibiae with the upper pair of spines often absent.

Wings broad. Hindwing tornus rounded and costa always > dorsum. Body longer than dorsum hindwing.

Forewing vein 2 nearer to base than to end cell: cell short, end never much produced and vein 5 generally straight.

Hindwing cell long, > ½ wing: end of cell straight: vein 1A < vein 3: vein 2 long before vein 7: vein 5 typically central, mid veins 4 and 6, more oblique in the last two genera.

Secondary sexual characters absent.

Facies plain to very varied. Antennal shaft chequered except in last genus.

1a (4a). F vein 1 straight: vein 3 after vein 10. Antennal club arcuate, flattened: nudum salmon coloured.

1 (2. 3). Nudum 6. Palpi very long. Fore tibiae without epiphysis: mid tibiae spines obsolete: hind tibiae upper spurs absent. H costa very elongate. Above unmarked: unh with two conspicuous silver stripes from base to termen.

Leptalina. 1 species. N. China and Japan.

2 (1. 3). Nudum 8. Fore tibiae, epiphysis slender or absent: mid tibiae spined: hind tibiae upper pair of spurs usually absent. Above generally with conspicuous tawny or white markings on both wings: unh with yellow or silver spots.

Carterocephalus. 13 species. Europe to China, N.E. Burma. One of the species occurs in N. America.

3 (1. 2). Nudum 9. Fore tibiae, epiphysis small or absent: mid tibiae heavily spined: hind tibiae with 2 pairs of spurs. Above plain or with ochreous markings upf: unh with many oval white spots.

Heteropterus. 1 species. Europe to N. China.

4a (1a). F vein 1 bowed and vein 3 before vein 10. Antennal club not flattened: nudum black, 10 segments: apiculus obtuse. Mid tibiae smooth: hind tibiae with 2 pairs of short spurs.

4 (5). F veins 10 and 11 approximate. Fore tibiae, with epiphysis slender or absent. Upf and unh with conspicuous yellow band.
Barca. 1 species. China.

5 (4). F veins 10 and 11 apart. Fore tibiae, epiphysis fully developed. Unmarked. Large.
Apostictopterus. 1 species. N.E. India, China.

G. Astictopterus Group

The key character taken for this group is the porrectness of the second palpal segment. But in many species of the *Halpe* subgroup this segment is erect rather than porrect. Nevertheless the association of the *Ampittia* and *Halpe* subgroups appears desirable on the score of similarity in secondary sexual characters and to some extent in genitalia. Also the members of the *Halpe* subgroup have a similar and somewhat peculiar type of genitalia, and it would be impossible to separate them into sections with porrect and erect palpi. The same difficulty arises in the *Gegenes* group. The explanation seems to lie in the differences in development between China and Malayana. In China there seems to be a tendency towards porrect palpi and obtuse antennal apiculi; in Malayana towards erect palpi and more sharply angled apiculi.

Antennae never > ½ costa; apiculus absent to obtuse or hooked; nudum 9 to 17 segments.

Palpi well separated, second segment generally porrect, tending in the *Halpe* subgroup to become flattened and erect; the quadrantic type does not occur; third segment comparatively stout, always porrect, short or long.

Legs normal.

Wings broad to elongate; no pronounced lobe to hindwing. Body = dorsum hindwing.

Forewing cell never long, nor much produced; vein 2 generally nearer to end cell than to base; vein 5 always nearer to vein 4 and more or less decurved.

Hindwing cell generally < ½ wing. In the ♂ the venation about end cell is often distorted, as part of the secondary sexual characters. In the ♀ the lower end of the cell is not upturned and the cubitus is collinear with vein 4.

Secondary sexual characters. The prevailing *Halpe* character is a brand upf correlated with the distortion of the veins at end cell hindwing, the turning up of the lower edge and the hair-pinning of veins 6 and 7. *Arnetta*, *Sebastonyma* and *Onryza* have peculiar characters of their own.

1a (3a). F vein 2 well before vein 11 and far away from vein 3, which is placed so that it is mid veins 2 and 4. Palpi long and porrect.

Astictopterus Subgroup. 2 genera.

1 (2). Wings broad: costa F arched; costa H > dorsum forewing; veins 11 and 12 approximate; apiculus obtuse, nudum 11. Unmarked except for sometimes hyaline spots upf and dark bands unh.

Astictopterus. 1 species. N.E. India and China to Java. Several species occur in Africa.

2 (1). Wings narrower; costa F straight; costa H not > dorsum F; veins 11 and 12 apart; apiculus obtuse or hooked, nudum 10 to 12. Upf with or without hyaline spots. In 2 species the ♂ has a tuft on the dorsum unf, combined with the distortion of vein 1 and the presence there of an obscure brand.

Arnetta. 4 species. India to Borneo. Several species occur in Madagascar.

3a (1a). F vein 2 after or opposite vein 11 and never so far from vein 3.

3b (7a). Generally wings broad and costa F always more or less arched.

Ampittia Subgroup. 4 genera.

3c (6). H cell < ½ wing.

3d (5a). Antennal club more or less flattened and apiculus obtuse from beginning of nudum.

3 (4). F vein 6 abnormal, arising well below end cell and

placed mid veins 5 and 7. Nudum 9. Above unmarked or with a yellow subapical spot forewing; unh yellow with black streaks and spots.

Ochus. 1 species. India, Burma to Tonkin.

4 (3). F vein 6 normal, with veins 7 and 8 at cell apex. Nudum 11. Upf with few dull ochreous markings; unh streaked and striated.

Baracus. 1 species. Ceylon, India, Burma.

5a (3d). Antennae with most of nudum (8 to 10) on the club, which is blunt ended; apiculus absent or short and obtuse. Above and below with more or less developed yellow markings. Some males with more or less developed *Halpe* type sexual characters of a brand upf and distortion of veins H, veins 6 and 7 hair-pinned.

Ampittia. 6 species. India and China to Borneo. Some species occur in Africa.

6 (3c). H cell = ½ wing. Antennae as in *Ampittia*, but in some species there is a very short hooked and pointed apiculus. Above plain or with a more or less developed discal row of small whitish dots; unh with grey or greenish-ochreous scaling on a dark ground, leaving a more or less conspicuous pattern. ♂ usually with more or less developed *Halpe*-like sexual characters, which upf may be reduced to a small grey dash over the middle of vein 1.

Aeromachus. 11 species. India and China to Java and Philippines.

7a (3b). Wings more produced at apex F and tornus H, costa straight. Upf generally with white or yellow hyaline spots.

Halpe Subgroup. 6 genera.

7 (8a). F upper end of cell not produced and vein 5 quite straight. Antennae = ½ costa, apiculus hooked, nudum 5/10. Palpi porrect, short. Clasp without foot-stalk. Unh with conspicuous pale yellow band. ♂ unf with a tuft on dorsum; uph brand in cell.

Sebastonyma. 2 species. Sikkim, Burma.

8a (7). F upper end of cell more or less produced and vein 5 decurved at origin. Clasp generally with a footstalk, which curves round the aedeagus sheath. Except in *Onryza* most species have the *Halpe* type of ♂ sexual characters; a brand of large, loosely packed, scales from base of space 2 upf to below vein 1, where it curves inwards; H cell shortened, veins 6 and 7 hair-pinned, lower end of cell upturned and veins 2, 3, 4 close together.

8 (9a). Uncus undivided. ♂ upf the brand at vein 1 placed nearer to the termen than the base, causing veins 2 to 5 to be close together and in the ♀ vein 4 is placed mid veins 3 and 5, instead of nearer to vein 5, as usual. Apiculus hooked, nudum 5/7 to 6/11.

Sovia nov: type *Hesperilla lucasii* Mabille. 6 species. India, China, Burma.

9a (8). Uncus divided, ♂ brand, if present, nearer base than termen at vein 1.

9b (13). Antennal apiculus not > than twice width of club.

9 (10a). Apiculus obtuse, rather stout and blunt, nudum 11 to 12. ♂ brand present or absent. Clasps usually asymmetric.

Pedesta. 6 species. N. India, China, Burma.

10a (9). Antennal apiculus hooked.

10 (11a). Uncus as in *Pedesta*, like an open pincer, seen ventrally, without side processes; gnathos well developed. ♂ without the *Halpe* type of brand and vein 2 before vein 11 in ♂ and ♀; in 2 species with a recumbent black "paint brush" in the basal half of space 7 uph and a brand in the lower part of the cell. Upf with non-hyaline yellow spots, including a conspicuous double spot in the cell, the lower part of which is produced basad.

Onryza. 4 species. China, Burma, Siam.

11a (10). Uncus divided and with more or less conspicuous side processes. ♂ with the *Halpe* brand rarely absent.

11 (12). Uncus deeply divided and gnathos strongly developed; clasps usually asymmetrical. Palpi generally more porrect. ♂ upf usually with 2 patches of pale scales,

like 2 whitish spots, on the outer edge of the brand in space 1b.

Thoressa. 19 species. India, China, Burma.

12 (11). Uncus of an entirely different type: viewed ventrally, it has a broad scalloped end; viewed from the side it is very thin; the side processes are long and often hooked; gnathos absent or incomplete. Palpi generally more erect and flattened. Apiculus more like a fish-hook.

Halpe. 25 species. India and China to Celebes.

13 (9b). Antennal apiculus very long and thin, 3 times as long as width of club; nudum 6/11. Palpi second segment very flattened. 1 species has the *Halpe* brand. Above bases overlaid with paler scaling and hairs.

Pithauria. 3 species. N. India and China to Java.

H. Isoteinon Group

The three genera included in this group may be regarded as the Palaearctic representatives of the *Plastingia* group. The genera resemble one another in having a comparatively short and blunt apiculus to the antennae and in the nature of vein 5 of the hindwing.

Antennae not $>\frac{1}{2}$ costa; apiculus very short, blunt or shortly pointed, compressed but not constricted; nudum 9 to 11.

Palpi; second segment slender, erect; third segment in continuation, short, pointed.

Legs normal, except that in *Eogenes* and *Actinor* the upper pair of spurs on the hind tibiae tend to be absent.

Wings with termens rounded. Hindwing costa and dorsum subequal. Abdomen long in two genera.

Forewing: cell shorter than dorsum, upper edge slightly produced; vein 4 opposite vein 9 and much nearer to vein 3 than to vein 6; vein 5 straight, or slightly decurved; vein 2 nearer to base than to end cell.

Hindwing: cell = half the wing, lower end not upturned and the median vein is collinear with vein 4; veins 2 and 7 more or less opposite; veins 1A and 8 subequal; vein 5 central and decurved at its origin.

Secondary sexual characters only present in one species of *Eogenes*.

Facies various. Antennae chequered.

1 (2a). Antennal club slender, obtuse, nudum 9. Abdomen not > dorsum hindwing. Upf with conspicuous hyaline white spots; uph plain. Cilia chequered. Unh with conspicuous dark-ringed white spots on an ochreous-green scaled dark brown ground.

Isoteinon. 1 species. China.

2a (1). Antennal club stout; nudum 10–11. Abdomen > dorsum hindwing. No hyaline spots. Cilia plain.

2 (3). Antennae very short, not much > $\frac{1}{3}$ costa. Upf with more or less developed dull pale yellow spots and there may be a few uph. Unh with more or less dense grey scaling on a dark ground and there may be a few obscure pale or dark spots.

Eogenes. 2 species. Asia Minor to Chitral and Baluchistan.

3 (2). Antennae nearly = $\frac{1}{2}$ costa. Upf and uph with conspicuous pale yellow spots. Unh with conspicuous white veins and bands.

Actinor. 1 species. N.W. Himalayas.

I. Ancistroides Group

The seven genera herein placed seem to form a natural group, separable from the *Plastingia* group primarily by the broad wings, generally without hyaline spots. The structural difference given in the analysis of groups is in respect of vein 5 of the hindwing. This character is well marked in most cases, but sometimes is not easy to see, while in a few cases (*fulgur*: individuals of *Iambrix* and others) it seems to break down; in some species of *Pirdana*, of the *Plastingia* group, the vein seems to be as in the *Ancistroides* group.

Antennae generally about $\frac{1}{2}$ costa, with a slender club and an obtuse, finely pointed, apiculus of 11 to 14 segments.

Palpi: second segment erect, typically stout and quadrantic, with the third segment stout, short and conical; but in the first 2 genera some species have slender palpi with the third segment long, thin, needle-like.

Legs normal.

Wings broad, with termens rounded. Hindwing costa and dorsum subequal. Abdomen = or < dorsum hindwing.

Forewing cell < dorsum. Venation variable.

Hindwing cell about = ½ wing, lower end not upturned and the cubitus collinear with vein 4; vein 2 usually before or opposite vein 7; veins 5 central and decurved at its origin.

Secondary sexual characters of various types.

Facies. Generally dark brown without hyaline spots and with or without red or yellow areas; antennae and cilia plain. There are hyaline markings in the last 2 genera and in the females of some *Iambrix* species.

1a (5a). F vein 5 straight, mid veins 4 and 6 at origin.
1 (2a). F veins 11 and 12 separate. Costa F arched and short, hardly longer than dorsum. Plain, or with red or yellow areas upf; ♀ of 2 species with small hyaline white spots. ♂ upf or unf usually with a brand.
Iambrix. 5 species. India to Borneo.

2a (1). F veins 11 and 12 almost touching.
2b (4). Antennae normal = ½ costa, apiculus obtuse, gradual.
2 (3). F vein 4 much nearer to vein 3 than to vein 6. Upf plain or with a red band. Secondary sexual characters peculiar; long thin hair tuft from base costa hindwing engaging with a groove, containing specialised scales, below the radius vein unf, between base and origin vein 11.
Koruthaialos. 4 species. India to Borneo and Philippines.

3 (2). F vein 4 abnormal, nearer to vein 6 than to vein 3. F produced and costa arched. Plain above. ♂ unf with a brand under origin vein 2.
Psolos. 1 species. India to Celebes.

4 (2b). Antennae abnormal, short, and apiculus constricted as in the *Hesperia-Gegenes* groups. Above unmarked.
Stimula. 1 species. N.E. India to Mid Burma.

5a (1a). F vein 5 more or less decurved at origin, where it is always nearer to vein 4 than to vein 6. Nudum 12 to 14. 5 (6a). F vein 3 opposite vein 10 at their origins and vein 4 not nearer to vein 3 than to vein 5. No hyaline markings, plain or with red or yellow areas. ♂ with a brand uph in one species.

Ancistroides. 6 species. India to Celebes.

6a (5). F vein 3 opposite vein 9 and vein 4 much nearer to vein 3 than to vein 5. With hyaline white markings and the antennae whitened at beginning of club and under apiculus.
6 (7). H cell = ½ wing. Antennae > ½ costa. F radius vein abnormally angled at origin of vein 11, at which point the cell is much wider than usual. Upf hyaline white band.

Notocrypta. 11 species. Indo-Australian.

7 (6). H cell < ½ wing. Antennae < ½ costa. Large hyaline spots upf and uph.

Udaspes. 2 species. China, India to Lombok.

J. Plastingia Group

The genera included here conform reasonably well with the definition given for the group. In a few cases (*Pirdana*) vein 5 hindwing is decurved at its origin and in one case (*Cyrina*) the antennal apiculus is constricted, but on all other considerations the positions assigned to these genera seem satisfactory. One species of *Prada* shows an approach in the hindwing venation to the *Trapezitinae*.

Antennae moderate to very long; apiculus always pointed, hooked or obtuse; nudum 13 to 25 segments.

Palpi, second segment starts as slender in the first subgroup, with the third segment pointed and protruding; in the next two subgroups it is usually broad and quadrantic, with a very short and stout third segment; in the last subgroup the second segment is flattened, with the third segment short.

Legs normal, except that the upper pair of spurs are absent in the hind tibiae in *Prada*. In *Cyrina* the legs are very shaggy.

Venation: the variation is too great for any generalisation.

Secondary sexual characters of many types.

1a (25a). Hindwing cell not abnormally long.

1b (12a). Antennal apiculus not longer than twice width of club, shortly to moderately hooked; nudum 13 to 15. Palpi generally, second segment slender; third pointed and protruding more or less.

Plastingia Subgroup. 11 genera.

1c (5a). H dorsum not longer than costa.

1d (4). Palpi third segment long and thin. F vein 5 straight.

1e (3). F vein 4 nearer to vein 3 than to vein 5; veins 11 and 12 close.

1 (2). F vein 1 straight; apex not produced. Upf, unh and usually uph, with white spots.

Scobura. 7 species. N. India and China to Borneo.

2 (1). F vein 1 more or less bowed; apex produced. Upf usually with white spots; uph may be partly white; unh white, more or less sullied or striated.

Suada. 3 species. N. India to Borneo and Philippines.

3 (1e). F vein 4 mid veins 3 and 5; veins 11 and 12 apart. Upf usually with white spots; uph may be partly white; unh grey or white with dark spots.

Suastus. 4 species. India to Borneo and Philippines.

4 (1d). Palpi third segment very short. F vein 5 decurved. Above, with broad yellow bands upf and uph; below, mostly yellow. ♂ uph with an oval white brand in the cell, which is abbreviated and the veins distorted, while above the cell there is a speculum to the costa; unf a yellow tuft from base dorsum over a speculum and the dorsum is there expanded. An aberrant species: feeds on dicotyledons.

Cupitha. 1 species. India to Philippines and Celebes.

5a (1c). H dorsum longer than costa.
5b (10a). F vein 3 opposite vein 9 rather than vein 10.
5c (7a). F vein 5 decurved.
5 (6). Palpi third segment short. Upf with white spots; unh with dark spots. ♂ may have brands along the veins upf; or unf base of vein 2 and the adjoining section of the cubitus may be swollen and overlaid by a hair tuft from base of dorsum.

Zographetus. 4 species. N. India to Philippines and Celebes.

6 (5). Palpi, third segment long and thin. Antennae long and white banded before apiculus. Upf with a broad white band.

Oerane. 1 species. N. India to Borneo and Philippines.

7a (5c). F vein 5 straight. Palpi, third segment short.
7 (8a). Antennae not > $\frac{1}{2}$ costa, not nearly as long as the cell. Upf with hyaline spots or unmarked. ♂ unf may have a dorsal tuft.

Hyarotis. 3 species. India, Borneo and Philippines.

8a (7). Antennae long, in ♂ as long as the cell; in ♀ reaches to end of vein 12.
8 (9). ♂ unmarked or marked as in ♀ with a compact central hyaline white band upf, no sub-apical spots; unh unmarked chocolate. No secondary sexual characters.

Quedara. 5 species. N. India to Borneo and Philippines.

9 (8). ♂ ♀ upf with central and subapical hyaline white spots: uph often with hyaline spots; unh usually overlaid with grey or greenish ochreous scaling. ♂ with varying sexual characters; upf discal stigma and a brand over base of vein 1; tornal cilia hindwing elongate.

Isma. 11 species. Burma to Borneo and Palawan.

10a (5b). F vein 3 opposite vein 10 rather than vein 9. Palpi, third segment short. Antennae as long as or longer than $\frac{1}{2}$ costa; apiculus variable.

10 (11). H cell = or > ½ wing. Generally with conspicuous yellow markings and upf always with a more or less prominent yellow streak in space 1b; unh plain or variegated with spots, not banded.

Plastingia. 24 species. India to Philippines and Celebes.

11 (10). H cell < ½ wing. Upf white hyaline spots. Unh plain or banded and the band may show uph. Eyes brown.

Lotongus. 4 species. N. India and China to Celebes.

12a (1b). Antennal apiculus longer than twice width of club, hooked or obtuse. Palpi generally with second segment stout, quadrantic; third very short, stout, bluntly conical, not usually protruding.

12b (19a). F cell not as long as dorsum H. Dorsum H not longer than dorsum F.

Erionota Subgroup. 7 genera.

12c (14a). H cell short, < ½ wing.

12 (13). Apiculus a long hook, nudum 6/12. F vein 5 decurved. Eyes always red. Upf with or without white spots; cilia at tornus H yellow or orange. Unh plain, but in some species there is a yellow spot at the end of the cells unf and unh. ♂ with varying sexual characters; upf a stigma or uph a brush, or both.

Zela. 4 species. N. India to Borneo.

13 (12). Apiculus obtuse; nudum 16. F vein 5 straight. ♂ above unmarked or, as in ♀, with large yellow spots upf. Unh with sparse white scaling. ♂ with varying sexual characters; glandular streaks along veins upf or uph; hair tufts upf, uph or unf.

Gangara. 3 species. India to Borneo and Philippines.

14a (12c). H cell = ½ wing.

14b (17a). F apex of cell not produced, vein 4 opposite vein 7 or 8.

14c (16). F vein 2 nearer to base than to end cell.

14 (15). Antennae not > ½ costa. Apiculus more or less

hooked or obtuse, nudum 5/11. Venation variable. Upf with large, usually separated, yellow or white hyaline spots.
Erionota. 7 species. India to Philippines and Celebes.

15 (14). Antennae > ½ costa; hooked, nudum 5/11. F vein 4 much nearer to vein 6 than to vein 3. Upf with a compact yellow band.
Ilma. 1 species. Celebes.

16 (14c). F vein 2 nearer to end cell than to base. Apiculus very long, nudum 14. F vein 5 straight, vein 4 mid veins 3 and 6. ♂ unmarked; ♀ upf with dull small ochreous spots. ♂ upf with a peculiar circular brand, exactly overlaid by hair-scales.
Ge. 1 species. Burma to Borneo.

17a (14b). F apex cell produced, vein 4 opposite vein 9.
17 (18). H lower apex of cell abnormally produced, so that vein 6 is opposite vein 2. Apiculus at right angles to the stout club and nearly equal to it in length; nudum 14. Unmarked; H cilia about tornus orange to pale yellow. ♂ with a broken discal stigma. Eyes red.
Matapa. 6 species. India to Celebes.

18 (17). H lower apex of cell normally produced, vein 3 opposite vein 6, as usual. F vein 4 much nearer to vein 3 than to vein 6. Upf and uph with hyaline yellow spots. ♂ upf with a brand.
Pudicitia. 1 species. N.E. India.

19a (12b). F cell very long = or > dorsum. H tornus more produced, dorsum generally > dorsum F.

Unkana Subgroup. 6 genera.

19b (22a). Antennae not > ½ costa.
19 (20a). F vein 5 straight. Upf with white or pale yellow hyaline spots, or plain; unh with a white or yellow area which may appear uph. Apiculus hooked, nudum 4/12 to 7/15.
Unkana. 3 species. Burma to Borneo and Celebes.

20a (19). F vein 5 decurved.
20 (21). H cell = ½ wing. Apiculus hooked, nudum 4/12. Upf with yellow hyaline spots and a spot in space 1b. Unh plain or striated, with insignificant dark or pale spots.
Hidari. 3 species. N. India to Borneo.

21 (20). H cell short, < ½ wing. Apiculus long, nudum 11/14. Both wings with hyaline white spots and unh mostly white. ♂ upf with a short stigma.
Eetion. 1 species. S. Burma to Borneo.

22a (19b). Antennae > ½ costa.
22b (24). Palpi normal, third segment short.
22 (23). F upper apex of cell rounded or somewhat produced, vein 4 opposite vein 8. Apiculus variable, nudum 16 to 5/13. Head green. Upf with white hyaline spots; uph and unh more or less white.
Acerbas. 5 species. Burma to Philippines and Celebes.

23 (22). F upper apex of cell acutely produced, vein 4 opposite vein 9; veins 4 and 5 strongly bowed. Apiculus obtuse, nudum 14; or hooked, nudum 5/12. Above unmarked, at tornus H cilia, sometimes part of wing, yellow; unh green, sometimes with dark veins.
Pirdana. 3 species. N. India to Celebes.

24 (22b). Palpi abnormal, third segment very long, stout, porrect. Upf and uph with rather small hyaline white spots; cilia hindwing orange. ♂ upf with a brand and uph with a hair tuft before dorsum.
Cyrina. 1 species. N.E. India, Borneo.

25a (1a). H cell abnormally long, ⅔ wing, constricted at end. Palpi, second segment flattened at end, third very short and porrect. Antennae = ½ costa; apiculus long. F cell very long, > dorsum; vein 2 nearer base than end cell, vein 3 opposite vein 10 and vein 3 opposite vein 8.

Prada Subgroup. 2 genera.

25 (26). F vein 5 straight. H cell broad, oblique ended, vein 5 oblique and slightly decurved at origin. Antennal

apiculus very long, tending to be twisted, nudum 4/18. Wing-shape of *Acerbas*. Upper pair of spurs of hind tibiae absent. Without hyaline spots, but brilliantly coloured above and below. ♂ of type species has a large oval grey brand in cell, overlaid by a pale hair tuft; unf a large speculum below vein 2, in the middle of which there is a dark indigo oval area.

Prada nov: type *Plastingia rothschildi* Evans 1938. 3 species. New Guinea.

26 (25). F vein 5 decurved. H cell narrow, end straight, vein 5 untraceable and space 4–5 narrow. Wing-shape of *Pirdana*. Above unmarked, head and thorax brilliant iridescent green; unh glazed indigo blue with a broad yellow central band, turning orange-red at costa; palpi red. Antennal apiculus obtuse, nudum 16.

Tiacellia nov: type *Hesperia tiacellia* Hewitson 1874. 1 species. New Guinea.

Note.—*Lotongus* and *Zela* are "borderline" genera in their respective subgroups and are closely related to one another.

K. Hesperia Group

An easily distinguished group. In some Chinese species of *Ochlodes* the tawny colouring is absent and they look as if they should be in the *Gegenes* group, but the genitalia are of the very well-marked *Ochlodes* form.

Antennae short to moderate, club stout; apiculus absent, short or moderate; nudum 10 to 8/8.

Palpi, second segment tapering, erect, hairy; third segment in continuation, pointed, long or moderate.

Legs normal, except that the mid tibiae are always spined and usually the fore and hind tibiae as well.

Wings more or less produced. Hindwing tornus usually with a distinct lobe. Body about = dorsum hindwing.

Forewing cell short, < dorsum; upper end produced and vein 5 decurved; veins 3 and 4 approximate; vein 2 about mid base and end cell.

Hindwing cell short, < $\frac{1}{2}$ wing; lower end more or less upturned; vein 1A usually longer than vein 8.

Secondary sexual characters; ♂ generally with a discal stigma upf.

Facies, mostly tawny or dark brown with tawny spots upf and uph; occasionally the spots are white.

1 (2a). Antennae short with club blunt, no apiculus, but club may be arcuate: nudum 10, compressed. Palpi, 3rd segment thin and as long as 2nd segment. H costa > dorsum. Tawny: if spots are present upf, they are in a continuous chain. ♂ upf stigma slender or absent.

Thymelicus. 8 species, N. Africa and Europe to China and Japan.

2a (1). Apiculus pointed. Palpi 3rd segment not nearly so long as 2nd segment. H dorsum > costa. Upf generally with spots, but those in spaces 4 and 5, if present, are out of line. ♂ upf stigma broad and always present.

2 (3). Apiculus minute, nudum 8/4, greatly compressed. ♂ F produced so that termen is straight and lower part more or less concave. Tawny: unh generally with many white spots. Aedeagus stout, simple.

Hesperia. 1 species, N. Africa and Europe to N.W. India, China and Japan. The same species and a number of others occur in N. America.

3 (2). Apiculus longer, as long as width of club: nudum variable, 6/6 to 7/7 or 5/7. F less produced and termen evenly convex. Tawny or dark brown with tawny or white spots, which may be hyaline: unh with few yellow or white spots. Aedeagus very stout and with very complex protruding processes.

Ochlodes. 12 species. Europe to China and Japan, N.E. India and N. Burma. Several species of the genus occur in N. America.

L. Taractrocera Group

The group characters are apiculus constricted, palpi erect, mid tibia smooth, tawny colouring. There are several exceptions to the last character, but the genitalia make it quite clear that the species have been correctly placed. There are, however, two other remarkable characters. The genitalia have no gnathos and the clasp consists of only one lamina, there being no overlying cuiller. *Prusiana* is the only exception: on genitalia, it belongs to the *Gegenes* group, but seems more appropriately placed near *Telicota.* The second feature is the more or less obvious presence of a connection between the wings: there is a long thin hair tuft at the base of the costa H, which fits into a groove below the basal third of the radius unf, which groove is fitted with diagonally placed scales. A similar feature is found in males of the genus *Koruthaialos*, but it is sexual and the groove is filled with androconia. For the classification of the many New Guinea species, superficial structural characters are not reliable and recourse must be had to the genitalia. Throughout the group similarity in facies renders identification often impossible without a genitalia examination.

Antennae moderate to very long: club may be flattened, but usually is stout: apiculus may be absent, but usually is short, very thin and sharply pointed: nudum 8/1 to 8/8 or 4/8.

Palpi, second segment always erect, may be flattened, never stout and quadrantic: third segment erect, long and thin, or short and stout.

Legs normal.

Wings broad or produced. Abdomen = or < dorsum H.

Forewing cell more or less produced, sometimes very long: vein 5 usually decurved and always nearer to vein 4.

Hindwing cell usually = ½ wing: end oblique and lower outer angle often much up-turned: vein 5 usually untraceable: vein 1A usually > vein 8.

Secondary sexual characters often present upf as a stigma or brands. *Prusiana* has a brand uph overlaid by a hair tuft.

Facies generally tawny: a few are plain or with white spots.

1a (7a). Palpi, 3rd segment long, protruding, thin as antennal shaft.

1b (4a). Antennal club flattened. Wings broad. Palpi needle-like.

1 (2a). Club flattened to a hollow disc, apiculus absent

or minute: nudum 8/1. Generally tawny, but 2 Oriental species have white spots. ♂ upf with a stigma in some Australian species.

Taractrocera. 14 species, India and China to Australia.

2a (1). Club not hollowed, with a short hooked or obtuse apiculus. Usually ♂ upf with a brand or stigma.

2 (3). Uncus undivided, as in *Taractrocera*. Upf tawny discal band with the spots in spaces 4 and 5 always slightly out of line. Antennae short: nudum variable 5/7, 2/8, 8/6.

Ocybadistes. 5 species, Timor to New Guinea and Australia.

3 (2). Uncus deeply divided. Upf tawny discal band (may be absent) in an evenly stepped line. Antennae longer, nudum 5/6.

Suniana. 3 species, Timor to New Guinea, Australia and Solomons.

4a (1b). Antennal club not flattened. Palpi not so thin.

4 (5a). F vein 2 nearer base than end cell and vein 4 much nearer to vein 3 than to vein 5. Antennae > ½ wing: apiculus hooked, nudum 6/6. ♂ no stigma or brands. Upf cell spot absent or conjoined to discal band. Australian species have hyaline discal spots: nudum 10/6.

Oriens. 8 species. India to Philippines and Celebes. Australia, Fiji, Samoa.

5a (4). F vein 2 nearer end cell than base and vein 4 not nearer to vein 3 than to vein 5.

5 (6). Antennae = ½ costa, apiculus hooked and not longer than width of club: nudum 4/8. ♂ upf generally with a brand over the middle of vein 1: some species have a discal stigma.

Potanthus. 26 species. India and China to Moluccas.

6 (5). Antennae > ½ costa, apiculus more obtuse and longer: nudum 5/8 to 7/10. ♂ upf usually with a discal stigma.

Arrhenes. 7 species. Flores and Moluccas to New Guinea and Australia.

7a (1a). Palpi 3rd segment shorter and stouter, never so thin as the antennal shaft. Wings more generally produced.

7b (11a). Antennae not longer than half costa.

7c (10). F upper apex of cell acutely produced, vein 5 opposite vein 9. Wings much produced in ♂. Nudum 8/8.

7d (9). H cell = half wing.

7 (8). F vein 2 nearer end cell than base. ♂ upf always with an unbroken discal stigma. Uncus usually deeply divided.

Telicota. 22 species. India and China to New Guinea, Australia and Solomons.

8 (7). F vein 2 nearer to base than to end cell. ♂ without brand or stigma. Uncus undivided.

Cephrenes. 5 species. India to Australia and Solomons.

9 (7d). H cell < half wing. ♂ uph with a glandular brand about base of space 6, overlaid in 2 species by a hair tuft and in one species correlated with a speculum mid dorsum unf.

Prusiana. 3 species. Borneo and Philippines to Moluccas.

10 (7c). F upper end of cell not acutely produced, vein 5 opposite vein 8. Antennal club peculiar, very stout, obtusely angled at thickest part, nudum 4/10. Wings broad: F dorsum > termen: H shaped as in *Telicota* ♀. ♂ without a stigma or brands.

Pastria nov: type *pastria* nov: described p. 414. 2 species New Guinea.

11a (7b). Antennae > half costa, often as long as the cell; nudum 8/8.

11 (12a). Uncus quadrate, seen ventrally: short, broad and not tapered, nor divided. Resembles *Pastria* in wing shape and end formation of cell F, vein 5 opposite vein 8. Typically without a brand or stigma: in 2 species the ♂ has a dark inconspicuous discal stigma upf.

Banta nov: type *banta* nov: described p. 414. 3 species New Guinea.

12a (11). Uncus more or less tapered, never quadrate. Wings generally produced: vein 5 F opposite vein 9.

12 (13a). Seen ventrally the end of the uncus is divided, ending either in 2 points or is scalloped. The clasp is often peculiarly fringed, comb-like, as in *Taractrocera*. All species are tawny banded. Brands or a stigma, or both are present in some species.

Kobrona. 14 species. New Guinea and neighbouring islands.

13a (12). Uncus undivided.

13 (14). Uncus sabre-like: seen ventrally, it is very long and thin, while, seen from the side, it is very much broader. 6 species are of the usual tawny type: 5 species are unmarked black, with white cilia: 1 has conspicuous white markings. All males have a more or less developed discal stigma upf, which may be continuous, broken or reduced to a single dot over vein 1.

Sabera. 11 species. New Guinea and neighbouring islands, Australia, Bismarcks, Fiji.

14 (13). Uncus as broad or broader, seen ventrally, than when seen sideways. A very mixed lot in respect of facies. ♂ upf a stigma or brands are present in most of the species.

Mimene. 15 species. New Guinea and neighbouring islands, Bismarcks.

M. Gegenes Group

The first 7 genera included herein form a compact group. The last, *Iton*, has different genitalia, but has the antennae characteristic of the group and seems better placed next *Caltoris* than in the *Plastingia* group.

Antennae not > ½ costa: club generally short and stout: nudum 11 to 16 segments of which usually as many or more are on the club as on the apiculus: apiculus usually right-angled, constricted after its commencement, and the sharply pointed tip is upturned. In *Polytremis* the apiculus tends to be obtuse.

Palpi, in the first four genera, are inconspicuous: second segment flattened and appressed to the face: third segment erect, in continuation of the second, short, pointed. In *Polytremis* the palpi are less flattened. In the last three genera the second segment is stout, erect, quadrantic and the third short, stout and conical.

Legs normal, except that the mid tibiae may be spined in some genera.

Wings produced at apex F and tornus H: H lobed more or less. Abdomen = dorsum H.

Forewing: upper apex of cell acutely angled: cell < dorsum: vein 5 decurved at origin: origin of vein 2 nearer to the end of cell than to the base (except *Iton*): internal cell veinlet to above origin of vein 3: vein 1 bisinuate.

Hindwing, lower end of cell upturned from the origin of vein 2, so that the cubitus and vein 4 are not in line: end cell inclined, directed to end of vein 2: vein 7 before vein 2: vein 1A as long as vein 2 or longer and longer than vein 8: vein 5 generally untraceable.

Secondary sexual characters may be a stigma upf; a recumbent tuft like a paintbrush uph; correlated to a brand on a speculum unf; or an upturned tuft on the dorsum unf.

Facies dark brown, generally with hyaline spots upf, more rarely uph and often with small spots unh.

1a (8). F vein 2 nearer to upper end cell than to base.
1b (3a). Antennae with more segments of the nudum on the club than on the apiculus.
1 (2). Antennae, very short, $\frac{1}{3}$ costa: nudum 10/1, apiculus minute. Mid tibiae heavily spined.

Gegenes. 2 species Mediterranean to N. India, one of which flies throughout Africa, where 2 other species occur.

2 (1). Antennae short, $\frac{7}{18}$ costa: nudum 8/5. Mid tibiae smooth.

Parnara. 4 species Indo-Australian, one of which flies throughout Africa and in Madagascar.

3a (1b). Antennae with at least as many segments on the apiculus as on the club.
3b (5a). Antennae not reaching to mid costa: nudum 7/7 to 8/8. F vein 2 opposite vein 11.

3 (4). Unh no cell spot. Mid tibiae unspined except in some African species, including the type, which have a few inconspicuous spines.

Borbo nov.: type *Hesperia borbonica* Boisduval. 4 species Indo-Australian and 18 African species, of which one extends to the Mediterranean.

4 (3). Unh with a cell spot. Mid tibiae heavily spined. ♂ upf generally with a discal stigma.

Pelopidas. 9 species, Turkey to Australia, two of which fly throughout Africa.

5a (3b). Antennae longer, nearly = ½ costa. F origin of vein 2 before origin of vein 11. Unh without a cell spot.
5 (6a). Nudum 5/8 to 5/9: apiculus more obtuse and palpi less flattened. Mid tibiae unspined.

Polytremis. 11 species, mostly from India and China, but one species reaches the Celebes and Timor.

6a (5). Nudum 7/7 to 8/8: apiculus right-angled. Palpi much stouter, 2nd segment quadrantic, 3rd short, stout, conical.
6 (7). Mid tibiae heavily spined. ♂ uph in all but one species with a "paintbrush", correlated to a brand on a speculum unf. Unh unmarked.

Baoris. 5 species, India to Java and Philippines.

7 (6). Mid tibiae unspined. One species, ♂ with a tuft on the dorsum unf. Unh unmarked, except for a white band in one species.

Caltoris. 17 species, India to New Guinea.

8 (1a). F vein 2 nearer to base at its origin than to upper end cell. Nudum 6/6: otherwise antennae and palpi as in *Baoris*. ♂ unf, in one species, with a hair tuft on the dorsum. Uph tornal area white in one species and a whitish discal area more or less apparent in the other species.

Iton. 2 species, India to Borneo.

KEYS TO SPECIES AND SUB-SPECIES, AND CATALOGUE OF SPECIMENS IN THE BRITISH MUSEUM (NATURAL HISTORY)

A.1. BIBASIS Moore 1881: type *sena* Moore: fixed by author.

Synonyms. *Ismene* Swainson 1820: type *oedipodea* Swainson: sole species included: homonym by Savigny 1816. *Burara* Swinhoe 1893: type *vasutana* Moore: fixed by Swinhoe 1912. *Pola, Sartora*, *Zehala*, *Gecana*, *Tothrix* Swinhoe 1912: types *ataphus* Watson, *ionis* De Nicéville, *striata* Hewitson, *fergusonii* De Nicéville, *mahintha* Moore: all fixed by author.

1a (14a). Unh more or less striped: small black spot at base of space 8.
1b (9a). Unf at apex, discal striping not reaching termen.
1c (6a). ♂ F origin of vein 3 nearer to origin of vein 2 than to origin of vein 4.
1d (5). ♂ upf with a conspicuous brand. H cilia orange.
1e (4). The ♂ brand basal, covering origin of vein 2.
1f (3). Uph dorsum not broadly orange.
1 (2). Unh with orange striping or markings.

oedipodea. 5 sub-species.

(a). ♂ uph costa not bent over at apex, but vein 8 is sharply bent along costa and vein 6 is bowed. ♂ F 23 mm.

Sub-sp. **ataphus** Watson 1893: ♂ Ceylon: type B.M. Fig Lep Ind.

B.M. 15 ♂ 2 ♀ Ceylon.

(b). ♂ similar, but venation is normal.

Sub-sp. **belesis** Mabille 1876: ♂ India: type B.M.

Synonyms. *aegina* Plötz 1884: ♂ Calcutta: copy of MS. plate in B.M.

athena Fruhstorfer 1911: ♂ Siam: type B.M.

B.M. 5 ♂ 6 ♀ N.W. Himalayas (Kangra-Kumaon). 29 ♂ 1 ♀ Sikkim. 2 ♂ Bhutan. 26 ♂ 2 ♀ Assam. 7 ♂ 2 ♀ Burma (to Dawnas). 7 ♂ Siam. 2 ♂ Tonkin. 3 ♂ 1 ♀ Hainan. 2 ♂ 1 ♀ China (Hong Kong, Kwang Si).

(c) ♂ uph apex of wing folded over, vein 8 sharply bent at costa and vein 6 bowed. Above, blue sheen and unh orange tornus much developed. ♂ F 23 mm.

Sub-sp. **oedipodea** Swainson 1820: ♂ Java: figured. Fig Rhop Java; Seitz.

B.M. 1 ♂ Peninsular Siam. 1 ♂ Sumatra. 3 ♂ Nias. 18 ♂ 6 ♀ Java. 10 ♂ 2 ♀ Borneo. 1 ♂ Palawan (Malaya, coll Corbet).

(d). ♂ similar, but also costa at base highly concave. Unh with orange striping on either side of vein 8. ♂ F 25 mm.

Sub-sp. **paltra** nov: ♂ Mindanao: J. Waterstradt 1903–4: type B.M.

B.M. ♂ type only.

(e). As *oedipodea*, but larger, ♂ F 28 mm. Unh orange areas very conspicuous, and with an oblique orange spot beyond the middle in space 7.

Sub-sp. **excellens** Hopffer 1874: ♂ Celebes. Fig in Seitz as *tuckeri*.

Synonym. *oedipus* Elwes & Edwards 1897: ♂ Sula Is.: figured.

B.M. 1 ♂ "Borneo". 9 ♂ 1 ♀ Celebes. 3 ♂ Sula Is.

2 (1). Below purple glossed: whitish discal area F and similar streaks H. ♂ F 27 mm.

tuckeri Elwes & Edwards 1897: ♂ Tavoy: type B.M.: figured. Fig in Seitz as *excellens*.

B.M. 1 ♂ Tavoy. 1 ♂ Perak (Jor camp 2,000 ft.: 1st Sept. 1922).

3 (1f). Uph dorsum broadly orange. ♂ F 23 mm.

phul Mabille 1876: ♂ Philippines: type B.M.

Synonyms. *tolo* Plötz 1881: ♂ Celebes.

lusca Swinhoe 1907: ♀ Celebes: type B.M. Fig Swinhoe 1908; Seitz.

B.M. 1 ♂ Philippines. 12 ♂ 5 ♀ Celebes.

4 (1e). ♂ upf brand central rather than basal, clear of origin of vein 2.

jaina 6 sub-species.

(a). ♂ upf brand composed of a black spot before mid vein 2 and a smaller separate spot above it. Unf no cell spot and discal markings faint. Large, ♂ 30 mm.

Sub-sp. **fergusonii** De Nicéville 1893: ♂ Travancore: figured. Fig Lep Ind; Seitz.

B.M. 16 ♂ 17 ♀ S. India.

(b). Similar, smaller, ♂ F 27 mm. Unf ochreous markings beyond cell conspicuous, as well as the whitish discal spots in spaces 2 and 3.

Sub-sp. **astigmata** Evans 1932: ♂ Andamans: type B.M.

B.M. 2 ♂ 1 ♀ Andamans.

(c). Unf with a white cell spot, short whitish streaks on disc and dorsum broadly whitish. Unh with conspicuous orange to whitish streaks beyond end cell. ♂ upf brand circular, 4 mm. across. ♂ F 27 mm. There are 2 more or less intergrading seasonal forms.

Sub-sp. **jaina** Moore 1865: ♂ Darjiling: type B.M. Fig Lep Ind; Seitz.

Synonym. *vasundhara* Fruhstorfer 1911: ♂ Assam: type B.M.

B.M. 2 ♂ 1♀ N.W. Himalayas (Dun-Kumaon). 16 ♂ 2 ♀ Sikkim. 29 ♂ 8 ♀ Assam. 1 ♂ Burma (Karens).

(d). As *jaina*, smaller, ♂ F 26 mm. Unf dorsal area yellower, discal streaks dull ochreous, obscure: unh discal streaks obsolete.

Sub-sp. **formosana** Fruhstorfer 1911: ♂ Formosa: type B.M.

B.M. 22 ♂ 5 ♀ Formosa.

(e). As *jaina*, but ♂ brand much larger, 7 mm. across.

Sub-sp. **margana** Fruhstorfer 1911: ♂ Hinlap, Siam: type B.M.

B.M. 4 ♂ 4 ♀ Burma (Dawnas). 2 ♂ Siam.

(f). ♂ upf large brand covered with dense hairs. Below, markings as *jaina*, but all whitish, reduced in ♀.

Sub-sp. ***velva** Evans 1932: ♂ Borneo: type B.M.

B.M. 2 ♂ Borneo.

5 (1d). ♂ upf no brand, but uph costa broadly whitish. Unf no cell spot, dark bar end cell, blurred ochreous area on disc and apex paler. Above and below, more or less purple washed. ♂ F 25 mm.

anadi De Nicéville 1883: ♂ Sikkim: figured. Fig Lep Ind.
Synonym. *purpurea* Riley & Godfrey 1925: ♂ Siam: type B.M.
B.M. 1 ♂ Mussoorie. 12 ♂ 1 ♀ Sikkim. 1 ♂ Assam. 5 ♂ Burma (Karens). 6 ♂ 2 ♀ Siam.

6a (1c). ♂ F vein 3 normal, nearer to vein 4 than to vein 2, as in ♀.
6b (8). F vein 3 with its origin opposite that of vein 11. Large, ♂ F over 30 mm.
6 (7). Below, with conspicuous orange areas and cilia H orange. ♂ F 32 mm.
etelka Hewitson 1867: ♂ Sarawak: type B.M. Fig Lep Ind; Seitz.
B.M. 14 ♂ Karens-Mergui. 1 ♂ 1 ♀ Malaya. 6 ♂ 3 ♀ Sumatra. 1 ♂ Java. 20 ♂ 2 ♀ Borneo.

7 (6). Below, no orange areas, cilia H whitish. ♂ F 36 mm. Unh shining blue-black with wide blue-white stripes in cell and between veins.
imperialis Plötz 1886: ♀ Celebes.
Synonym. *castnioides* Van der Bergh 1922: ♂ Minahassa: figured.
B.M. 7 ♂ 9 ♀ Celebes. 1 ♂ 1 ♀ Bangkei.

8 (6b). F vein 3 with its origin opposite that of vein 10. Smaller, ♂ F 25 mm. ♂ uph costa broadly whitish.
harisa. 4 sub-species with slightly differing clasps.
(a). Top of clasp sloping and serrate. Above more variegated. Below yellow striped.
Sub-sp. **harisa** Moore 1865: ♂ Bengal. Fig Lep Ind; Seitz.
Synonym. *asambha* Fruhstorfer 1911: ♂ Tonkin: type B.M. Fig Seitz.
B.M. 15 ♂ 15 ♀ Sikkim. 6 ♂ 5 ♀ Assam. 12 ♂ 14 ♀ Burma. 1 ♀ Siam. 1 ♂ Hainan. 1 ♂ Andamans.
(b). Top of clasp rounded and serrate. More uniform and duller above and below.
Sub-sp. **consobrina** Plötz 1884: ♂ Java. Fig Rhop Java; Seitz.
Synonyms. *moncada* Fruhstorfer 1911: ♂ Malaya: type B.M.

crinatha Fruhstorfer 1911: ♂ Java: type B.M. Fig Seitz.
distanti (Swinhoe MS) Evans 1932=*moncada*.
B.M. 2 ♂ 5 ♀ Malaya. 3 ♂ Sumatra. 1 ♂ Banka. 26 ♂ 8 ♀ Java. 12 ♂ 1 ♀ Borneo.
(c). Large, pale form with very broad markings below. ♂ F 26 mm.

Sub-sp. **niasana** Swinhoe 1912: ♂ Nias: type B.M.
B.M. 20 ♂ 7 ♀ Nias.
(d). Top of clasp rounded and smooth. Cilia H whitish. Unh like *imperialis*. ♂ F 25 mm.

Sub-sp. **aphrodite** Fruhstorfer 1905: ♀ Toli, Celebes: type B.M.
Synonym. *mangolina* 1932: ♀ Sula Mangoli: type B.M.
B.M. 1 ♂ 1 ♀ Celebes. 1 ♂ 2 ♀ Sula Mangoli.

9a (1b). Unf at apex, striped green or whitish up to termen.
9b (12a). H cilia ochreous. Unh and apex unf green with black veins and streaks.
9c (11). ♂ upf no brand.
9 (10). ♂ above, uniform: ♀ with pale shining blue at bases. ♂ F 28 mm.

vasutana Moore 1865: ♂ Darjiling: type B.M. Fig Lep Ind; Seitz.
Synonyms. *rahita* Fruhstorfer 1911: ♂ Assam: type B.M.
burma Evans 1934: ♂ Karens: type B.M.
B.M. 1 ♂ Nepal. 16 ♂ 9 ♀ Sikkim. 20 ♂ 7 ♀ Assam. 4 ♂ 4 ♀ Burma (Karens, Dawnas).

10 (9). ♂ larger, F 33 mm.; above, bases broadly clothed with conspicuous dark yellow hairs. Genitalia very different.

miracula nov: ♂ Kuatun, Fukien: type B.M.
B.M. 7 ♂ Fukien.

11 (9c). ♂ upf with brands above vein 1 and on either side of veins 2 and 3. ♂ above, with dull orange basal clothing: ♀ plain. ♂ F 28 mm.

striata Hewitson 1867: ♂ China: type B.M. Fig Seitz I.
Synonym. *septentrionis* Felder 1867: ♂ Shanghai: figured: type B.M.

B.M. 1 ♂ 1 ♀ Kwanhsien. 1 ♂ Kiang-Si. 1 ♂ Shanghai. 32 ♂ 14 ♀ W. Szechwan (Ta Tsien Lou, etc.). 2 ♂ Yunnan.

12a (9b). H cilia white.

12 (13). ♂ F origin vein 3 nearer to vein 2 than to vein 4. ♂ above uniform dark brown, darker on disc. Unh brown with green veins and stripes. ♂ F 25 mm.

amara Moore 1865: ♂ Bengal: type B.M. Fig Lep Ind.
Synonym. *pindapatra* Fruhstorfer 1911: type B.M.
B.M. 20 ♂ 2 ♀ Sikkim. 12 ♂ 5 ♀ Assam. 13 ♂ 1 ♀ Burma (to S. Shan St.). 2 ♂ 1 ♀ Andamans. 1 ♂ Siam. 1 ♂ Hainan.

13 (12). F vein 3 normal, rising nearer vein 4, as in ♀. Unh veins greenish with broad pale green stripes between the veins.

gomata. 6 sub-species with similar genitalia, with peculiar long slender, twisted processes from the aedeagus sheath.
(a). ♂ large, F 28 mm., and pale. Unf veins dark. Unh pale band from base cell to mid termen broad and immaculate.
Sub-sp. **lara** Leech 1894: ♂ Moupin: type B.M.: figured.
B.M. 19 ♂ 3 ♀ W. China (Ta Tsien Lou, etc.). 1 ♂ Yunnan.
(b). ♂ F 23 mm. Unf veins on outer half narrowly pale. Unh pale central band immaculate except for short dark streaks at end of vein 5.
Sub-sp. **kanara** Evans 1926: ♂ N. Kanara: type B.M.
B.M. 17 ♂ 15 ♀ S. India.
(c). ♂ F 25 mm. As *kanara*, but unh dark streaks about end of vein 5 reach to the end of the cell.
Sub-sp. **gomata** Moore 1865: ♂ N.E. Bengal: type B.M. Fig Lep Ind; Seitz.
B.M. 17 ♂ 3 ♀ Sikkim. 19 ♂ 2 ♀ Assam.
(d). Unf veins dark and dark areas broader. Unh vein 5 usually dark throughout its length.
Sub-sp. **lalita** Fruhstorfer 1911: ♂ W. Sumatra: type B.M. Fig Rhop Java.
Synonym. *vajra* Fruhstorfer 1911: ♂ Java: type B.M.
B.M. 5 ♂ Burma (Karens to Mergui). 1 ♂ Malaya. 1 ♂ Sumatra. 9 ♂ 5 ♀ Java. 11 ♂ Borneo.

(e). ♂ above, paler: unf cell entirely pale and veins beyond pale. ♀ upf with conspicuous whitish spots in spaces 2 and 3.

Sub-sp. **lorquini** Mabille 1876: ♀ Manila: type B.M.
Synonym. *mindorana* Fruhstorfer 1911: ♂ Mindoro.
B.M. 1 ♂ 1 ♀ Philippines (Luzon).

(f). Below, bluish-white instead of greenish. Above some specimens are as pale as *lorquini*, others as dark as *gomata*.

Sub-sp. **radiosa** Plötz 1885: ♂ Celebes. Fig Swinhoe 1908; Seitz.
B.M. 8 ♂ 2 ♀ Celebes. 1 ♂ Bangkei.

14a (1a). Unh unstriped: no small black spot at the base of space 8. Cilia H ochreous.

14 (15a). ♂ upf no brand, but vein 3 rises nearer to vein 2 than to vein 4. Unh plain brown. ♀ upf with pale discal spots in spaces 2 to 7 and in cell.

aquilina. 3 sub-species.

(a). Small, ♂ F 22 mm. ♂ upf paler between veins on disc and a suffused dark bar at end cell: unf with sharply defined sub-equal spots in spaces 2 and 3.

Sub-sp. **chrysaeglia** Butler 1881: ♂ Yesso, Japan: type B.M. Fig Matsumura 1931.
B.M. 25 ♂ 19 ♀ Japan.

(b). ♂ 24 mm. Darker: ♂ unf the pale spots duller.

Sub-sp. **aquilina** Speyer 1879: ♂ Vladivostok. Fig Seitz I.
Synonym. *jankowskii* Oberthür 1880: ♂ Askold: type B.M.: figured.
B.M. 7 ♂ 2 ♀ Amur. 8 ♂ 1 ♀ Askold.

(c). Similar, but still darker. ♂ upf uniform: unf pale spot in space 3 (often absent) shorter than the spot in space 2 and, with the pale area in space 1b, forms a triangle. ♂ F 24 mm.

Sub-sp. **siola** Evans 1934: ♂ Siao-Lou: type B.M.
B.M. 45 ♂ W. China (Ta Tsien Lou, etc.).

15a (14). ♂ F vein 3 normal, rising nearer to vein 4.

15 (16). ♂ upf with a conspicuous black brand.

iluska. 3 sub-species, with slightly different genitalia.

(a). ♂ upf brand broad and irregular, consisting of conjoined black streaks above vein 1, on either side of vein 2 and below vein 3. Above, bases broadly orange and upf with hyaline white spots in spaces 2 and 3, which may be absent in ♂. Unh slaty brown, unmarked. ♂ F 23 mm.

Sub-sp. **mahintha** Moore 1874: ♂ Burma: type B.M. Fig Lep Ind.

B.M. 5 ♂ 4 ♀ Manipur. 15 ♂ 16 ♀ Burma (to Ataran).

(b). ♂ upf brand narrow, 1 mm., and regular, from mid vein 1 to vein 3. Above uniform, ♀ with traces of spots in spaces 2 and 3. Unh with a more or less distinct narrow white discal band beyond end cell. ♂ F 20 mm.

Sub-sp. **nestor** Möschler 1878: ♂ Java. Fig Seitz ♂ and ♀.

Synonyms. *firdusi* Plötz 1884=*nestor*.

atrinota Mabille 1891: ♂ Timor.

antigone Röber 1892: ♂ Flores: figured.

ionis De Nicéville 1895: ♂ Sumbawa: figured.

sambavana Elwes & Edwards 1897: ♂ Sumbawa: type B.M.: figured.

zonaras Fruhstorfer 1911: ♂ Wetter: type B.M.

B.M. 19 ♂ 5 ♀ Java. 6 ♂ Sumbawa. 6 ♂ 6 ♀ Lombok. 2 ♂ Sumba. 1 ♂ Wetter. 1 ♂ Alor. 2 ♂ S. Flores. 1 ♂ Pura.

(c). ♂ upf brand 3 mm. broad, regular. Unh obscure traces of a pale band. ♂ F 20 mm.

Sub-sp. **iluska** Hewitson 1867: ♂ Macassar: type B.M. Fig Seitz.

Synonym. *rubrocincta* Mabille 1891: ♀ (nec ♂) Celebes.

B.M. 6 ♂ 2 ♀ Celebes. 1 ♂ Kalao (150 miles N. of Flores).

16 (15). ♂ upf without a brand. Wings produced, resembling *Hasora*. Unf with large white central area. Unh with a broad white central band, entering end of cell. End abdomen and cilia orange.

sena. 4 sub-species.

(a). ♂ F 20 mm. Unh band outwardly diffuse: faintly purple washed.

Sub-sp. **sena** Moore 1865: ♂ Bengal: type B.M. Fig Lep Ind.

B.M. 6 ♂ 2 ♀ Ceylon. 21 ♂ 15 ♀ S. India. 2 ♂ 1 ♀ N.W.

Himalayas (Murree, Kumaon). 12 ♂ 1 ♀ Sikkim. 29 ♂ 8 ♀ Assam. 2 ♂ Burma (Karens). 6 ♂ Siam. 2 ♂ 2 ♀ Hainan. 2 ♂ Andamans.

(b). Unh band sharply defined on both sides: usually purple glossed.

Sub-sp. **uniformis** Elwes & Edwards 1897: ♂ Java: type B.M. Fig Rhop Java.

B.M. 5 ♂ 2 ♀ Burma (Karens-Ataran). 2 ♂ Malaya. 14 ♂ 1 ♀ Java. 9 ♂ Borneo. 2 ♂ 1 ♀ Lombok. 2 ♂ 1 ♀ Bawean. 1 ♀ Sumba.

(c). Below, no purple gloss.

Sub-sp. **palawana** Staudinger 1889: ♀ Palawan. Fig in Seitz. Synonym. *vaicravana* Fruhstorfer 1911: ♂ Luzon. Fig in Seitz.

B.M. ♂ 1 Palawan. 1 ♂ Mindanao. 1 ♂ Philippines. 2 ♂ Sulu Is.

(d). Larger, ♂ F 22 mm. Above greyer: unh band wider.

Sub-sp. **senata** Evans 1934: ♂ Macassar: type B.M.

B.M. 8 ♂ 4 ♀ Celebes.

A.2. ALLORA Waterhouse & Lyell 1914: type *doleschallii* Felder: fixed by authors.

1 (2). ♂ F 23 mm. Unh no white spot near apex. Unf cell spot widely separated from the pale spots in spaces 1b and 2, which may be absent. Clasp with a long thin upturned end to the cuiller.

doleschallii. 6 sub-species.

(a). Above basal iridescence dark green and very restricted. Below dull purple brown: unf spots small and narrow: unh the cell and subtornal spots well marked.

Sub-sp. **gazaka** Fruhstorfer 1911: ♂ Batchian.

B.M. 7 ♂ Batchian, N. Moluccas.

(b). Above, basal iridescence blue. Below pale markings very conspicuous: unf spots in spaces 1b and 2 very large and overlapped by the spot in space 3.

Sub-sp. **viridicans** Fruhstorfer 1911: ♂ Ceram: type B.M.

B.M. 14 ♂ 4 ♀ Buru. 12 ♂ 5 ♀ Ceram.

(c). Intermediate to *albertisi*. Typically, above, iridescence blue rather than green: unf spots in spaces 1b and 2 well marked, but not overlapped by the spot in space 3. In N. Australia grades to *albertisi.*

Sub-sp. **doleschallii** Felder 1860: ♂ Amboina: type B.M. Fig Felder 1867; Seitz.

Synonym. *simassa* Fruhstorfer 1911: ♂ Australia. Fig Waterhouse 1932.

B.M. 4 ♂ Amboina. 11 ♂ 11 ♀ Kei Is. 2 ♂ Aru. 1 ♂ Thursday Is. 1 ♀ Prince of Wales Is. 5 ♂ 1 ♀ N. Queensland. 5 ♂ 2 ♀ Schouten Is.

(d). Above, basal iridescence green. Below, pale markings very reduced, sometimes absent.

Sub-sp. ***albertisi** Oberthür 1880: ♂ Andai, New Guinea: figured. Fig in Seitz.

Synonyms. *strophius* Miskin 1889: S.E. New Guinea.
raluana Ribbe 1899: ♂ Bismarcks.
sitiva Fruhstorfer 1911: ♂ Waigou: type B.M.
infernalis Rothschild 1916: ♂ Dutch N.G.: type B.M.

B.M. 3 ♂ "Lombok" (probably New Guinea). 7 ♂ Waigou 39 ♂ 8 ♀ New Guinea. 1 ♂ Trobriands. 2 ♀ Goodenough Is. 3 ♂ Woodlark Is. 5 ♂ New Britain. 6 ♂ 2 ♀ New Ireland.

(e). Unf with 2 white spots at the apex in spaces 6 and 7 (rarely also a dot in space 8) internal to the wavy submarginal line. Unh marked as in *doleschallii*, but the spots in spaces 1b and 2 are narrower and outwardly excavate. Clasp slightly different.

Sub-sp. **luna** Evans 1934: ♂ Rendova, Solomons: type B.M.
B.M. 13 ♂ Rendova.

(f). As *luna*, but unf and unh resembling *albertisi.*

Sub-sp. **solon** nov: ♂ Aola, Guadalcanar: type B.M.
B.M. 14 ♂ 5 ♀ Guadalcanar. 18 ♂ 1 ♀ Bougainville. 1 ♀ Florida Is. 1 ♂ Choiseul.

2 (1). ♂ F 25 mm. Unh usually with a white subapical spot, as well as the cell and subtornal spots. Unf the cell spot in line with the inner edges of the spots in spaces 1b and 2: with sub-apical spots in spaces 7 and 8 and usually a smaller one near the termen in space 6. Clasp with a broad decurved end to the cuiller.

major. 4 sub-species.

(a). Above, basal iridescence blue. Unf large spots in spaces 1b and 2 of the same width.

Sub-sp. ***zita** Evans 1934: ♂ Buru: type B.M.

B.M. 1 ♂ Amboina. 4 ♂ 1 ♀ Buru. 4 ♂ Ceram. 1 ♂ Saparoea.

(b). Above, basal iridescence green. Unf spot in space 2 smaller.

Sub-sp. **major** Rothschild 1916: ♂ Carstenz Peak, 5–10,000 ft., New Guinea: type B.M.

B.M. 1 ♂ Kei Is. 1 ♀ Aru. 33 ♂ 15 ♀ New Guinea. 6 ♂ 3 ♀ Mefor Is.

(c). Unh with a conspicuous gloss and the markings much more conspicuous, particularly the sub-apical spot.

Sub-sp. **lectra** nov: ♂ Biak, Schouten Is.: May, June 1914: A. C. & F. Pratt: type B.M.

B.M. 20 ♂ 8 ♀ Schouten Is.

(d). Larger, ♂ F 27 mm. Above, basal green iridescence more extensive. Unf submarginal wavy line unbroken at vein 6, as it is in all other sub-species. Unh as *major*.

Sub-sp. **talesia** nov: ♂ Talesia, New Britain, Jan. 1915: A. Eichhorn: type B.M.

B.M. 1 ♂ 1 ♀ New Britain.

A.3. HASORA Moore 1881: type *badra* Moore: fixed by author.

Synonym. *Parata* Moore 1881: type *taminatus* Hübner: fixed by author as *chromus* Cramer of Moore, which is *taminatus* and not *chromus* Cramer.

1a (9a). Uncus bifid, divided laterally, but not ventrally. ♂ upf no brand.

1b (5a). Style of clasp undivided.

Lizetta Group

1c (4). Unh no pale band: a dark tornal lobe, surmounted by a pale spot.

1d (3). Unh brown.

1(2). Unh uniform. ♀ upf unmarked. Wings rounded. ♂ F 20 mm.

mus. 2 sub-species.

(a). Uph cilia brown.

Sub-sp. **pahanga** Evans 1926: ♂ Gunong Tahan, Malaya: type B.M.
B.M. 11 ♂ Malaya.
(b). Uph cilia pale yellow.
Sub-sp. **mus** Elwes & Edwards 1897: ♂ Kina Balu: figured: type B.M. Fig Seitz.
B.M. 11 ♂ 14 ♀ Borneo.

2 (1). Unh outer third sharply paler. ♀ upf, yellow hyaline spots in cell, spaces 2 and 3, dots in spaces 6 and 7. ♂ F 23 mm.
lizetta Plötz 1884: ♂ Java. Fig Seitz; Rh Java; Distant as *badra* var.
Synonym. *hadria* De Nicéville 1889: ♂ Perak: figured. *wortha* Swinhoe 1907: ♂ Java: type B.M. Fig Swinhoe 1908; Seitz.
B.M. 6 ♂ Malaya. 13 ♂ 1 ♀ Sumatra. 19 ♂ 1 ♀ Java.

3 (1d). Unh green. ♀ upf with white spots in spaces 2 and 3. ♂ F 23 mm.
salanga Plötz 1885: ♂ Malacca. Copy of unpublished plate in B.M.
Synonym. *woolletti* Riley 1923: ♂ Borneo: type B.M.
B.M. 2 ♂ 2 ♀ S. Burma, Dawnas. 3 ♂ Malaya. 4 ♂ Sumatra. 6 ♂ 1 ♀ Borneo.

4 (1c). Unh with a discal pale band. Head green.
proxissima. 5 sub-species.
(a). Unh band 2 mm. wide, broken above the dark tornal lobe: basal area dull greenish. Unf faint pre-apical band. ♀ upf as *salanga*. ♂ F 22 mm.
Sub-sp. **siamica** Evans 1932: ♂ S.E. Siam: type B.M. Fig Riley & Godfrey 1921.
B.M. 3 ♂ 3 ♀ Siam.
(b). Similar, smaller, ♂ F 21 mm. Unh more uniform, band 1 mm. wide.
Sub-sp. **siva** Evans 1932: ♂ Lawas, Borneo: type B.M.
B.M. 4 ♂ Borneo.
(c). Unh band 4½ mm. wide, unbroken, no dark tornal lobe: basal area bright green. Unf pre-apical pale band conspicuous. ♀ upf as *salanga*. ♂ F 22 mm.

Sub-sp. **proxissima** Elwes & Edwards 1897: ♂ Mindoro: figured. Fig Seitz, ♂ as *proximata*; Semper ♀.
B.M. 1 ♀ Philippines.
(d). Above much darker. Unh shining indigo blue, band 5 mm. wide, continuous to tornus: narrow bluish submarginal band as in *discolor*. Unf apex and costa shining indigo blue, broad yellowish area mid costa, quite separate from the pale bar at end cell, a well-defined narrow bluish discal band to vein 2. ♂ F 23 mm. Differs from *vitta simillima* in that the band unh enters the cell and from *discolor* in that vein 3 is much nearer to vein 2, instead of mid veins 2 and 4.

Sub-sp. **takwa** nov: ♂ Utakwa R, Dutch N.G.: A. S. Meek: type B.M.
B.M. 4 ♂ New Guinea (Kapaur: Utakwa R: Astrolabe Bay).
(e). Unh basal area dark green, outwardly chocolate, band 4 mm., unbroken. Unf pre-apical band narrow. ♀ as ♂. ♂ F 25 mm.

Sub-sp. ***lavella** Evans 1926: ♂ Vella Lavella: type B.M.
B.M. 3 ♂ 1 ♀ Solomon Is.

5a (1b). Style of clasp bifid. Unh outer third sharply paler, no pale band.

Myra Group

5b (7a). Unh no dark tornal lobe. ♀ upf marked as *lizetta*.
5 (6). ♂ usually with 1 or 2 sub-apical white dots upf and a pale dot in cell unh. ♀ upf with 3 apical dots.

anura. 2 sub-spieces.
(a). ♂ F 26 mm.: apical dots upf conspicuous. Unh unglossed brown.

Sub-sp. **china** nov: ♂ Ta Tsien Lou: type B.M. Fig Leech, ♀ as *anura*.
B.M. 32 ♂ 18 ♀ W. China. 1 ♂ 1 ♀ Fukien. 1 ♂ 1 ♀ Hunan. 2 ♀ Yunnan.
(b). ♂ F 22 mm. Unh with more or less of a purple gloss or slaty glaze.

Sub-sp. **anura** De Nicéville 1889: ♂ Sikkim: figured. Fig Lep Ind; Seitz.
B.M. 6 ♂ 4 ♀ Sikkim. 4 ♂ 2 ♀ Khasi Hills. 2 ♂ Mishmi

Hills. 9 ♂ 7 ♀ Naga Hills and Manipur. 2 ♂ 5 ♀ N. Burma (Bhamo: Sadon). 2 ♂ 1 ♀ S. Shan States.

6 (5). ♂ upf and unh spotless. ♀ upf with 2 sub-apical dots. Palpi and pectus yellow. ♂ F 23 mm.

myra. 2 sub-species.

(a). Uph uniform yellowish brown.

Sub-sp. ***funebris** Evans 1932: ♂ Gunong Ijau, Malaya: type B.M.

B.M. 9 ♂ 1 ♀ Malaya.

(b). Uph tornal quarter yellow.

Sub-sp. **myra** Hewitson 1867: ♂ Java: type B.M. Fig Hewitson; Rh Java; Seitz.

B.M. 2 ♂ Sumatra. 23 ♂ 13 ♀ Java.

7a (5b). Unh with a more or less well-marked dark tornal lobe.

7 (8). Unf costa and apex and all unh with a purple glaze. Very like *anura*, but unh the dark discal line is not indented in space 5 in the ♂ and the dots upf and in cell unh are absent. In the ♀ the resemblance is even closer: unh glaze intense and the cell spot very small. ♂ F 25 mm.

danda nov: ♂ Kalaw, S. Shan St.: type B.M.

B.M. 1 ♂ Manipur. 3 ♂ 4 ♀ S. Shan St. 2 ♂ 1 ♀ Karen Hills. 1 ♂ W. Siam. 2 ♀ Tonkin.

8 (7). Below no purple glaze. Above very much darker: wings broader, ♂ F 25 mm. Unh the line separating the dark basal and paler outer areas more bowed, parallel to the termen.

***zoma** Evans 1934: ♂ Jelebu, Malaya: type B.M.

B.M. 2 ♂ Malaya. 1 ♂ Sumatra.

9a (1a). Uncus quadrifid, ventrally divided and each arm laterally divided.

9b (17a). Style of clasp undivided.

9c (13a). ♂ upf no brand.

Discolor Group

9d (11a). Unh no pale band, outer third paler.

9 (10). Unh unmarked except for the dark tornal lobe and the pale spot above it. ♀ with white spots in spaces 2 and 3 upf. ♂ F 24 mm.

umbrina Mabille 1891: ♂ Celebes. Fig Seitz.

Synonym. *hobroa* Swinhoe 1907: ♂ Celebes: type B.M. Fig Swinhoe 1908.

B.M. 4 ♂ 2 ♀ Celebes.

10 (9). Unh dark chocolate, white dot in cell and 2 dots in space 1c above tornus. ♀ as ♂. ♂ F 23 mm.

***buina** Evans 1926: ♀ Bougainville: type B.M.

B.M. 2 ♂ 1 ♀ Solomons (Bougainville, Vella Lavella).

11a (9d). Unh with a pale central band.

11 (12). Unh with a narrow pale blue submarginal band. Palpi green. ♀ as ♂.

discolor. 4 sub-species.

(a). Unf no pale area below cell. Unh shining indigo blue, band yellowish 6 mm. wide, contracted to 1 mm. in space 1c. ♂ F 25 mm.

Sub-sp. ***splendida** Mabille 1876: ♂ "Philippines": type B.M.

B.M. 1 ♂ Batchian. 1 ♂ type, probably also from Batchian.

(b). Unh basal area shining indigo blue, outer area dull purple-black: band bluish. ♂ F 24 mm.

Sub-sp. **discolor** Felder 1859: ♀ "Brazil" (probably Amboina): type B.M. Fig Felder 1867; Seitz.

B.M. 1 ♂ Obi. 1 ♀ Amboina. 4 ♂ 2 ♀ Buru. 10 ♂ 3 ♀ Ceram. (c). Unh basal and outer areas shining indigo blue: band yellowish.

Sub-sp. **mastusia** Fruhstorfer 1911: ♂ Cape York: type B.M. Fig Waterhouse 1932.

B.M. 1 ♀ Kei Is. 2 ♂ Aru. 29 ♂ 12 ♀ New Guinea. 3 ♂ 1 ♀ Schouten Is. 5 ♂ 4 ♀ Waigou. 15 ♂ 15 ♀ N. Queensland.

(d). Above basal green hairs absent. Unh basal area shining dark green, outer area chocolate: band pale bluish, very broad, 7 mm. constricted to 2 mm. at vein 1. Unf bar and cell very narrow and discal band short.

Sub-sp. **eira** nov: ♂ New Ireland: Feb. 1924: A. F. Eichhorn: type B.M.
B.M. 1 ♂ type.

12 (11). Unh brown with a broad pale band, constricted mid space 1c: no pale submarginal band: no dark tornal lobe. Head green.

borneensis. 2 sub-species.

(a). ♂ above, basal hairs rather paler brown: in ♀ broadly pale straw colour. ♀ upf with large yellow spots as in *lizetta*. ♂ F 27 mm.

Sub-sp. **borneensis** Elwes & Edwards 1897: ♂ Kina Balu: type B.M.: figured. Fig Seitz.
B.M. 11 ♂ 7 ♀ Borneo.

(b). ♂ above bases broadly straw-coloured as in ♀ of *borneensis*. Unh band white instead of pale yellow. ♂ F 25 mm.

Sub-sp. **luza** nov: ♂ Leponto, N. Luzon: J. Whitehead: type B.M.
B.M. 1 ♂ type.

13a (9c). ♂ upf with a broken discal stigma. Unh with pale band.

Chromus Group

13b (15a). Unh pale band discontinuous in space 1b.

13 (14). Above, bases conspicuously paler and F dorsum = termen. ♀ upf with oblique, more or less crescentic, white spots in spaces 2 and 3. Uncus with the 4 branches pressed together: style of clasp simple. Unh brown, more or less glossed purple or indigo: band narrow, bluish-white and diffused on its outer edge.

chromus. 3 sub-species.

(a). Large, ♂ F 25 mm. Unh purple gloss faint, band wider.

Sub-sp. **inermis** Elwes & Edwards 1897: ♂ Liu Kiu Is.: type B.M.: figured.
B.M. 1 ♂ 1 ♀ Liu Kiu Is. 1 ♀ Okinawa, Japan.

(b). Smaller, ♂ F 25 mm. Unh purple gloss usually conspicuous.

Sub-sp. **chromus** Cramer 1782: ♂ Coromandel: figured. Fig as *alexis* in Lep Ind; Seitz; Rh Java.

Synonyms. *alexis* Fabricius 1773: India: homonym by Poda 1761.
contempta Plötz 1884: ♀ Cape York. Fig Seitz; Waterhouse 1932.
lucescens Lucas 1900: ♂ S. Queensland.
attenuata Mabille 1904: ♂ D.N.G.: type B.M.: homonym by Staudinger 1889.
ganapata Fruhstorfer 1911: ♂ D.N.G.: type B.M.
B.M. 8 ♂ 8 ♀ Ceylon. 29 ♂ 22 ♀ India (to Baluchistan). 12 ♂ 7 ♀ Burma. 1 ♂ Siam. 1 ♂ Annam. 1 ♂ Hong Kong. 1 ♂ Shanghai. 2 ♂ Formosa. 1 ♀ Malaya. 2 ♂ Borneo. 2 ♂ 1 ♀ Moluccas. 1 ♂ Tenimber. 11 ♂ 6 ♀ New Guinea. 2 ♂ 1 ♀ Rossel. 2 ♂ New Ireland. 9 ♂ 10 ♀ Australia (Darwin, Queensland).
(c). Small, ♂ F 21 mm. Below no purple gloss: band narrow.

Sub-sp. **bilunata** Butler 1882: ♀ Fiji: type B.M.
B.M. 7 ♂ 6 ♀ Fiji. 10 ♂ 3 ♀ New Hebrides.

14 (13). Above, uniform and F dorsum > termen. ♀ upf usually with 1 or 2 rounded spots, which fail E. of the Celebes. Unh more or less blue or green, band white with sharp edges. Uncus branches well separated: style of clasp with a slender appendage.

taminatus. 10 sub-species.
(a). Unh base dull indigo blue, band $2\frac{1}{2}$ mm. Unf apex and unh beyond band, clothed ochreous brown scales. ♂ F 20 mm.

Sub-sp. **taminatus** Hübner 1818: ♂ "Surinam". Fig Lep Ind as *butleri*.
Synonym. *butleri* Aurivillius 1897, for *chromus* auctorum, nec Cramer.
B.M. 10 ♂ 10 ♀ Ceylon. 10 ♂ 10 ♀ S. India.
(b). Similar: unh band narrower and outer area glazed purple indigo. In N.E. India and N. Burma there occurs a dry season form, which is smaller, ♂ F 18 mm., paler and unh brown with a purple gloss, band narrower and resembling *chromus*.

Sub-sp. **bhavara** Fruhstorfer 1911: ♂ Sikkim: type B.M. Fig Seitz.

B.M. 2 ♀ Kangra. 12 ♂ 2 ♀ Sikkim. 16 ♂ 7 ♀ Assam. 4 ♂ Burma (to Karens). 1 ♂ W. Siam. 1 ♂ 2 ♀ W. China (Omeishan, Teng-yueh-Ting).

(c). Unh entirely clothed ochreous brown scales, no purple gloss: band narrow, ¾ mm., sullied. Wings more rounded. ♂ F 20 mm.

Sub-sp. **vairacana** Fruhstorfer 1911: ♂ Formosa: type B.M. Fig Seitz.

B.M. 10 ♂ 10 ♀ Formosa.

(d). Unh basal area shining steely blue: band very narrow, ½ mm.: beyond the band with dark ochreous scaling on a purple ground. ♂ F varying from 20 to 25 mm.

Sub-sp. **malayana** Felder 1860: ♂ Malacca. Fig Rh Java as *chromus*: Felder's fig in Reise Novara 1867 was taken from a ♀ from Amboina.

Synonyms. *almea* Swinhoe 1909: ♀ Borneo: type B.M. *canostigma* Joicey & Talbot 1921: ♂ Hainan: type B.M. *salemana* Kalis 1933: ♂ Kangean.

B.M. 18 ♂ 8 ♀ S. Burma. 1 ♂ 3 ♀ Siam. 4 ♂ 1 ♀ Hainan. 1 ♂ Hong Kong. 6 ♂ Malaya. 10 ♂ 5 ♀ Sumatra. 5 ♂ 4 ♀ Nias. 10 ♂ 10 ♀ Borneo. 9 ♂ 9 ♀ Java. 1 ♂ Sumbawa.

(e). Unh basal and outer area brilliant green, band 1½ mm. ♂ F 27 mm.

Sub-sp. **andama** nov: ♂ S. Andamans: type B.M. Fig Lep Ind as *malayana*.

B.M. 10 ♂ 10 ♀ S. Andamans. 2 ♂ 2 ♀ Car Nicobar.

(f). Smaller, ♂ F 24 mm. Unh base shining green, band 1½ mm., beyond shining purple.

Sub-sp. **milona** Evans 1932: ♂ Camorta: type B.M.

B.M. 4 ♂ 6 ♀ Central Nicobars. 1 ♂ 1 ♀ S. Nicobars.

(g). As *malayana*, unh base greener, band wider, 1½ mm. ♂ F 23 mm.

Sub-sp. **padma** Fruhstorfer 1911: ♂ Bazilan: type B.M.

Synonym. *galaca* Fruhstorfer 1911: ♂ Bazilan: type B.M.

B.M. 3 ♂ 1 ♀ Palawan. 5 ♂ 6 ♀ Philippines. 2 ♂ 3 ♀ Sumba. 2 ♂ 4 ♀ Timor.

(h). As *malayana*, larger ♂ F 26 mm. Unh base greener: band very narrow, ½ mm. and irregular. ♂ upf outwardly paler.

Sub-sp. **attenuata** Staudinger 1889: ♂ Minahassa. Fig Seitz.
Synonyms. *meala* Swinhoe 1907: ♂ Celebes: type B.M. Fig Swinhoe 1908.
acakra Fruhstorfer 1911: ♂ Sula Besi: type B.M.
B.M. 12 ♂ 7 ♀ Celebes. 1 ♂ 1 ♀ Sula Besi.
(i). Unh varying between *padma* and *attenuata*. ♂ F 21–24 mm. ♀ upf without spots.

Sub-sp. **amboinensis** Swinhoe 1909: ♂ Amboina: type B.M. Fig Felder 1867, ♀ as *malayana* from a specimen in B.M., agreeing exactly with other specimens from Amboina.
Synonyms. *pramidha* Fruhstorfer 1911: ♂ Obi: type B.M.
junta Evans 1934: ♂ Batchian: type B.M.
B.M. 1 ♂ 1 ♀ Batchian. 1 ♀ Halmaheira. 15 ♂ 1 ♀ Obi. 8 ♂ 5 ♀ Ceram. 1 ♂ 3 ♀ Buru. 4 ♂ 8 ♀ Amboina. 3 ♂ 5 ♀ Key Is.
(j). Unf bluish green along the costa to within 4 mm. of termen. Unh similar and the band obsolete. Resembles *thridas*. ♂ F 21 mm.

Sub-sp. **dipama** Fruhstorfer 1911: ♂ Waigou: type B.M.
B.M. ♂ type only.

15a (13b). Unh pale band unbroken.
15 (16). Above, unmarked, bases paler. Unh chocolate, band white.

hurama. 4 sub-species.
(a). Smaller, ♂ F 22 mm., and paler. Unh no purple gloss, white band very narrow, tapering to ½ mm. at costa.

Sub-sp. **mola** nov: ♂ Batchian: type B.M.
B.M. 8 ♂ 2 ♀ Batchian.
(b). ♂ F 23–25 mm., darker. Below more or less purple glossed: unh band 2–3 mm., not tapered to costa.

Sub-sp. **hurama** Butler 1870: ♂ Cape York: type B.M. Fig Seitz.
Synonyms. *vivapama* Fruhstorfer 1911: ♂ Saparoea: type B.M.
postfasciata Rothschild 1916: ♂ Utakwa R.: type B.M.
B.M. 1 ♂ Obi. 1 ♂ Ternate. 4 ♂ 1 ♀ Halmaheira. 5 ♂ 3 ♀ Buru. 4 ♂ 1 ♀ Ceram. 3 ♂ 3 ♀ Amboina. 2 ♂ 1 ♀ Mysol. 6 ♂ 6 ♀ Waigou. 16 ♂ 14 ♀ New Guinea. 4 ♂ 4 ♀ Kiriwini.

1 ♂ 1 ♀ Woodlark Is. 1 ♂ St. Aignan. 1 ♂ 1 ♀ Sudest Is. 2 ♂ 2 ♀ New Ireland. 9 ♂ 3 ♀ Queensland.

(c). Larger, ♂ 25–26 mm. Unh band as *hurama* but the rest of the wing is shining violet blue, not merely glossed. ♀ unf the post-discal band conspicuous.

Sub-sp. **arua** Evans 1934: ♂ Aru: type B.M.

B.M. 11 ♂ 8 ♀ Aru.

(d). Small, ♂ F 21 mm.: wings squarer. Unh usually no violet gloss: band broad, 3½ mm. at costa to 6 mm. centrally. ♀ unf curved white post-discal band very conspicuous.

Sub-sp. **kieta** Strand 1922: ♂ Solomons.

B.M. 15 ♂ 16 ♀ Solomon Is. 3 ♀ Admiralty Is.

16 (15). Upf and uph with conspicuous yellow markings. **schoenherr.** 5 sub-species.

(a). ♂ upf spots hyaline. ♂ only the antennal club yellow. Upf stigma paler. Uph band reaches costa broadly and unh tapers from 5 mm. at costa to 2 mm. in space 1c. ♂ F 22 mm.

Sub-sp. **gaspa** nov: ♂ Naga Hills: type B.M.

B.M. 12 ♂ 1 ♀ Assam. 17 ♂ Burma. 1 ♀ Siam. 2 ♂ Tonkin.

(b). Similar. ♂ antennal shaft also yellow. Uph band not usually reaching costa and unh even, 4 mm. ♂ F 25 mm.

Sub-sp. **chuza** Hewitson 1867: ♂ Sarawak: type B.M.: Fig Hewitson; Lep Ind.

Synonym. *sumatranus* Kalis 1933: ♂ S.W. Sumatra.

B.M. 6 ♂ 1 ♀ Malaya. 9 ♂ Sumatra. 26 ♂ 8 ♀ Borneo.

(c). Unh much paler, band 5 mm. ♂ F 24 mm.

Sub-sp. **cridatta** Fruhstorfer 1911: ♂ Nias: type B.M.

B.M. 17 ♂ 4 ♀ Nias.

(d). As *chuza*, but unh band broader, 5 mm.

Sub-sp. **schoenherr** Latreille 1828: ♂ Java. Fig Rh Java; Seitz.

Synonym. *derma* Riley 1926 (*nomen nudum* Moore 1857).

B.M. 9 ♂ 2 ♀ Java.

(e). ♂ upf yellow spots opaque, base cell and costa yellow. ♀ upf spots hyaline, no yellow basal area, but a streak mid dorsum. ♂ F 25 mm.

Sub-sp. **saida** Hewitson 1867: ♂ Philippines: type B.M. Fig Hewitson.
Synonym. *gentiana* Felder 1867: ♂ Luzon: type B.M.: figured. Fig Seitz.
B.M. 1 ♂ 1 ♀ Luzon. 2 ♂ 1 ♀ Mindoro. 1 ♂ 1 ♀ Mindanao. 1 ♂ Negros. 6 ♂ 5 ♀ Philippines.

17a (9b). Style of clasp divided.
17b (25a). Style of clasp bifid.

Celaenus Group

17c (19a). ♂ upf with a discal stigma.
17 (18). Unh brown, purple glossed: pale spot in cell faint or absent.

mixta. 4 sub-species.
(a). Unh brown colouring predominant, also the central band. ♀ upf with well-developed yellow discal and apical spots. ♂ F 20–22 mm.

Sub-sp. **prabha** Fruhstorfer 1911: ♂ Palawan: type B.M. Fig Rh Java as *mixta*; De Nicéville 1895 as *proxissima*; Seitz as *tyrius*.
Synonyms. *lioneli* Fruhstorfer 1911: ♂ Sumatra.
tyrius Fruhstorfer 1911: ♂ W. Java.
yanuna Fruhstorfer 1911: ♂ Nias: type B.M.
B.M. 6 ♂ 1 ♀ S. Burma, Ataran. 1 ♂ Malaya. 7 ♂ 3 ♀ Sumatra. 14 ♂ 10 ♀ Nias. 1 ♂ Batu. 10 ♂ 6 ♀ Java. 3 ♂ 1 ♀ Palawan. 1 ♂ Sulu.
(b). Unh purple wash predominant, band faint. ♀ upf apical spots absent and unh with a slaty glaze recalling *anura*.

Sub-sp. **mixta** Mabille 1876: ♀ Manila: type B.M. Fig Seitz as *cirta*.
Synonyms. *philetas* Plötz: ♂ Philippines. Fig Seitz.
cirta Fruhstorfer 1911: ♂ Bazilan: type B.M.
B.M. 2 ♂ Palawan. 15 ♂ 12 ♀ Philippines (Mindanao, Mindoro).
(c). ♂ as *mixta*: ♀ upf usually only with a spot in space 2.

Sub-sp. **fenestrata** Fruhstorfer 1911: ♀ Minahassa.
B.M. 9 ♂ 4 ♀ Celebes, Siao & Sangir. 2 ♂ 1 ♀ Sula Is.
(d). Large, ♂ F 25 mm.: wings more rounded. Below as *mixta*, but the purple wash intense. ♀ upf spotless.

Sub-sp. **simplicissima** Mabille 1876: ♂ Moluccas: type B.M.
B.M. 14 ♂ 7 ♀ Batchian. 3 ♂ 3 ♀ Halmaheira. 2 ♂ 1 ♀ Obi. 1 ♂ 1 ♀ Amboina.

18 (17). ♂ below shining indigo blue: ♀ shining light green. ♂ F 24 mm.

celaenus Stoll 1782: ♂ Amboina: figured. Fig Seitz pl. 166i is *thridas* not *celaenus*.
Synonyms. *lugubris* Boisduval 1832: ♀ Dorey.
violacea Elwes & Edwards 1897: ♂ Amboina: figured. Fig Seitz.
akshita Fruhstorfer 1911: ♀ Waigou: type B.M.
B.M. 1 ♀ Batchian. 5 ♂ 5 ♀ Obi. 8 ♂ 8 ♀ Amboina. 11 ♂ 8 ♀ Ceram. 9 ♂ 9 ♀ Buru. 3 ♂ Aru. 11 ♂ 12 ♀ Waigou. 10 ♂ 4 ♀ Mysol. 16 ♂ 16 ♀ New Guinea. 5 ♂ 6 ♀ Schouten Is. 1 ♂ 1 ♀ Solomons.

19a (17c). ♂ without discal stigma upf.
19b (21a). Unh brown with a pale spot in cell and in space 1c.
19 (20). Unh cell spot smaller than half width of cell. ♂ upf dense hairs on the disc look like a brand: often with faint apical spots. Unf pale dorsal area crossing space 2. ♀ upf with hyaline yellow discal spots and usually 3 sub-equal apical spots. Style of clasp with the upper limb longer. ♂ F 23 mm.

badra. 2 sub-species.
(a). ♂ unh spots yellow: no purple gloss.
Sub-sp. **lanka** Evans 1926: ♂ Ceylon: type B.M. Fig Lep Ceylon 1888.
B.M. 4 ♂ 3 ♀ Ceylon.
(b). Unh spots white: more or less purple glossed.
Sub-sp. **badra** Moore 1857: ♂ Java: type is a figure of larva. Fig Rh Java; Lep Ind; Seitz.
Synonyms. *certhia* Plötz 1884: ♂ Philippines: copy of MS. plate in B.M.
godana Fruhstorfer 1911: ♂ Formosa: type B.M.
sankarya Fruhstorfer 1911: ♂ Engano: type B.M.
B.M. 12 ♂ 12 ♀ S. India. 10 ♂ 10 ♀ Sikkim. 8 ♂ 7 ♀ Assam. 13 ♂ 8 ♀ Burma. 2 ♂ Siam. 2 ♂ China, Kiang Si.

3 ♂ 2 ♀ Hainan. 3 ♂ 3 ♀ Formosa. 3 ♂ 1 ♀ Tonkin. 2 ♂ Andamans. 1 ♀ Nicobars. 4 ♂ 2 ♀ Malaya. 1 ♂ 3 ♀ Nias. 4 ♂ 2 ♀ Sumatra. 13 ♂ 5 ♀ Java. 3 ♂ 3 ♀ Engano. 1 ♂ Bawean. 18 ♂ 3 ♀ Borneo. 1 ♂ 1 ♀ Palawan. 1 ♂ Celebes. 1 ♀ S. Flores.

20 (19). Unh cell spot much larger than half width of cell. ♂ upf no apical spots and unf pale dorsal area not crossing space 2. Style of clasp with the limbs sub-equal and more slender. ♂ F 24–25 mm.

quadripunctata. 3 sub-species.

(a). Unh purple gloss intense. ♀ upf 1 or no apical spot.

Sub-sp. **gnaeus** Plötz 1884: ♂ Philippines. Fig Seitz.

Synonym. *madatta* Fruhstorfer 1911: ♂ Java: type B.M. Fig Seitz.

B.M. 1 ♀ Malaya. 4 ♂ Sumatra. 1 ♂ 2 ♀ Java. 17 ♂ 6 ♀ Borneo. 6 ♂ Philippines (Mindoro, Mindanao).

(b). ♀ upf spots reduced, cell spot often, apical spots always absent.

Sub-sp. **celebica** Staudinger 1889: ♂ Celebes.

B.M. 17 ♂ 11 ♀ Celebes.

(c). Unh purple gloss most intense. ♀ upf spotless.

Sub-sp. **quadripunctata** Mabille 1876: ♀ Moluccas: type B.M.

B.M. 1 ♂ 3 ♀ N. Moluccas (Batchian, Halmaheira).

21a (19b). Unh not brown with 2 pale spots.

21 (22a). Unh black with blue veins, streaks and bands. ♀ as ♂. ♂ F 25 mm.

***subcoelestis** Rothschild 1916: ♀ Dutch New Guinea: type B.M.

B.M. 15 ♂ 17 ♀ New Guinea.

22a (21). Generally, unh with a white band: upf white apical dot in space 6. ♀ with pale yellow hyaline spots in spaces 2, 3 and 6 upf.

22b (24). Tip of clasp blunt, not produced.

22 (23). Tip of clasp broad, serrate, half width of clasp in middle. Unh basal area dark indigo, more or less densely overlaid with brown scales.

vitta. 6 sub-species.

(a). Unh white band broken in space 1b, 2½ mm. wide, outwardly diffused. ♂ F 22 mm.

Sub-sp. **indica** Evans 1932: ♂ Karens: type B.M. Fig Lep Ind as *chabrona*.

B.M. 11 ♂ 11 ♀ S. India. 6 ♂ 6 ♀ Sikkim. 10 ♂ 4 ♀ Assam. 5 ♂ 4 ♀ Burma (to Karens). 8 ♂ 3 ♀ W. China (Ta Tsien Lou).

(b). Unh white band outwardly sharply defined, 1½ mm. wide: basal greenish blue area conspicuous, especially along dorsum. ♂ F 21 mm.

Sub-sp. **manda** nov: ♂ S. Andamans: type B.M.

B.M. 8 ♂ 1 ♀ Andamans.

(c). Larger, ♂ F 23 mm. Unh as *manda*, basal area browner.

Sub-sp. **vitta** Butler 1870: ♂ Labuan: type B.M. Fig Butler 1874.

Synonym. *chabrona* Plötz 1884: ♂ Malacca. Fig Swinhoe 1908.

B.M. 4 ♂ S. Burma. 1 ♂ 3 ♀ Tonkin. 18 ♂ 3 ♂ Malaya. 9 ♂ 3 ♀ Sumatra. 6 ♂ 1 ♀ Nias. 11 ♂ 11 ♀ Borneo. 2 ♂ 1 ♀ Celebes.

(d). Unh band broader 2½ mm., sharply defined and more continuous at tornus.

Sub-sp. **proximata** Staudinger 1891: ♂ Palawan. Fig Semper ♀: Seitz ♂ as *proxissima*.

Synonym. *pathana* Fruhstorfer 1911: ♂ Luzon. Fig Seitz.

B.M. 1 ♂ 1 ♀ Palawan.

(e). ♂ much darker: unf conspicuous, sharply defined, bluish white scaling at end of cell and beyond cell from vein 3 to vein 6. Unh white band narrow, 1 mm., sharply defined and not broken in space 1b. ♀ similar: upf marked as in *vitta*. ♂ F 23 mm.

Sub-sp. **sula** Evans 1932: ♀ Sula-Besi: type B.M.

B.M. 5 ♂ Celebes. 1 ♀ Sula-Besi.

(f). Upf no sub-apical dot. Unh indigo blue: white band broad: with a narrow submarginal blue band, as in *discolor*. ♀ above unmarked and unf large bluish white spot at end cell. ♂ F 25 mm.

Sub-sp. **simillima** Rothschild 1916: ♂ Kapaur: type B.M. Synonym. *latifascia* Joicey & Talbot 1917: ♂ Schouten Is: type B.M.
B.M. 1 ♂ Waigou. 1 ♂ 1 ♀ Dutch New Guinea. 2 ♂ 2 ♀ Mefor Is. 2 ♂ 2 ♀ Schouten Is.

23 (22). Tip of clasp narrow, much narrower than ½ width of clasp in middle. Like *vitta*, but unh the wing basis is brown, overlaid with brown scales uniformly over the wing, basal area not darker. ♂ F 23 mm.
moestissima. 2 sub-species.
(a). Unh no purple gloss: white band narrow, 1 mm., sharply defined, more or less broken in space 1b. Unf narrow whitish bar at end cell, but fainter than in *vitta*.
Sub-sp. **moestissima** Mabille 1876: ♂ Celebes: type B.M.
B.M. 9 ♂ Mindanao. 8 ♂ 1 ♀ Celebes.
(b). Below with a dull purple gloss. Unf no pale bar at end cell and sub-apical dot faint. Unh pale band narrow and faint.
Sub-sp. **unica** Evans 1934: ♂ Aru (?): type B.M.
B.M. Only the type.

24 (22b). Tip of clasp curved back to a long point. Above unmarked. Below dark brown, paler on F except for broad dark apex and a white dot in space 6. Unh white band 3 mm. in middle, contracted to 1½ mm. at costa, inset to 1 mm. at v2 to dorsum, but absent in space 1b: no dark tornal lobe. Wings broad. ♂ F 26 mm.
perplexa. Mabille 1876: ♂ Moluccas: type B.M.
B.M. ♂ type only.

25a (17b). Style of clasp trifid. Antennal club longer, nudum 36 as against 26 to 30 in preceding species. ♂ upf with more or less well-marked brands along the veins, on either side of veins 1, 2 and 3 and under vein 4.

Thridas Group

25 (26a). Unh brown, no purple gloss: usually with a white band. ♂ upf unmarked: ♀ usually with pale yellow hyaline spots in spaces 2, 3 and 6.
khoda. 10 sub-species.

(a). Unh band 1½ mm., broken at tornus. ♀ uph grey-haired. ♂ F 25 mm.

Sub-sp. **coulteri** Wood Mason & De Nicéville 1881: ♂ Cachar: figured. Fig Lep Ind.

B.M. 6 ♂ 1 ♀ Assam. 2 ♂ Ataran. 2 ♀ Andamans.

(b). ♀ similar, but unf with a purple-white bar at end cell and unh band 4½ mm., tapering to 1 mm. at vein 1.

Sub-sp. **mavis** Evans 1934: ♀ Perak: type B.M.

B.M. ♀ type only.

(c). Unh discal white band only faintly indicated. ♂ F 25 mm.

Sub-sp. **tantra** Fruhstorfer 1911: ♂ Nias: type B.M.

Synonyms. *avajra* Fruhstorfer 1911: ♂ Sumba: type B.M.

B.M. 5 ♂ 1 ♀ Nias. 4 ♂ Java. 1 ♂ Sumba.

(d). Unh band narrow, 1 mm., usually tapering to costa. ♂ F 25 mm.

Sub-sp. **minsona** Swinhoe 1907: ♂ Borneo: type B.M. Fig Swinhoe 1908.

Synonym. *venesta* Evans 1934: ♂ Philippines: type B.M.

B.M. 1 ♀ Malaya. 36 ♂ 1 ♀ Borneo. 1 ♂ Palawan. 1 ♂ 1 ♀ Philippines. 1 ♂ Negros Is.

(e). Similar, but larger, ♂ F 27 mm. Below paler, grey brown.

Sub-sp. **burgeri** Ribbe 1889: ♂ Celebes.

B.M. 3 ♂ 1 ♀ Celebes. 1 ♂ Siao. 1 ♂ Talaut.

(f). Unh discal band broad, 5 mm., tapering at ends. ♂ brands faint. ♂ F 26 mm.

Sub-sp. **plexa** nov: ♂ Buru: type B.M.

4 ♀ Amboina. 2 ♂ 1 ♀ Buru. 2 ♂ 1 ♀ Ceram. 1 ♂ Batjan.

(g). Above bases green-haired. Unh band 3 mm., more continuous. ♂ F 26 mm.

Sub-sp. **dampierensis** Rothschild 1915: ♂ Dampier: type B.M.

B.M. 10 ♂ 9 ♀ New Guinea. 1 ♂ Dampier.

(h). Unh band suffused brown, narrow. Very large, ♂ F 30 mm.

Sub-sp. **linda** Evans 1934: ♂ Bougainville: type B.M.

B.M. 1 ♂ Bougainville. 1 ♂ Guadalcanar. 2 ♂ Florida Is.

(i). Like *dampierensis*, but unh band 1 mm., less continuous.

Sub-sp. **haslia** Swinhoe 1899: ♂ Brisbane: type B.M. Fig Waterhouse 1932.

B.M. 11 ♂ 13 ♀ Queensland.

(j). Above no greenish hairs. ♀ upf spots small or absent. Below paler: unf end cell and apex pale brown. Unh band narrow, suffused. ♂ F 22 mm.

Sub-sp. **khoda** Mabille 1876: ♂ Is. des Pins, New Caledonia: type B.M.

B.M. 1 ♂ 2 ♀ New Caledonia. 1 ♂ 1 ♀ Lifu. 1 ♂ 2 ♀ Sandwich Is.

26a (25). Unh not plain brown.

26 (27). Unh dark brown with strong purple gloss. ♂ upf brands conspicuous.

leucospila. 2 sub-species.

(a). Unh with a trace of a paler band ending in a white subtornal spot and a spot beyond on dorsum. Unf a pale bar at end cell. ♂ F 25 mm.

Sub-sp. **leucospila** Mabille 1891: ♂ N. Celebes. Fig Seitz.

Synonyms. *palinda* Swinhoe 1905: ♂ Java: type B.M.

matisca Fruhstorfer 1911: ♂ Bazilan: type B.M.

parnia Fruhstorfer 1911: ♂ Kina Balu: type B.M.

B.M. 2 ♂ Mergui, S. Burma. 2 ♂ Sumatra. 2 ♂ Java. 3 ♂ Borneo. 1 ♂ Mindanao. 1 ♂ 1 ♀ Celebes.

(b). Unh purple wash intense: no band. Unf pre-apical blue band. ♂ F 25 mm.

Sub-sp. **spila** nov: ♂ Amboina: type B.M.

B.M. Only the type.

27 (26). Unh bluish green. ♂ F 27 mm.

thridas. 2 sub-species.

(a). Unh with a narrow, well-marked, white discal band. ♀ upf unmarked.

Sub-sp. **thridas** Boisduval 1832: ♂ Buru. Fig Seitz as *celaenus*.

Synonyms. *ribbei* Plötz 1886: ♂ Buru.

apara Fruhstorfer 1911: ♂ Obi: type B.M.

B.M. 2 ♂ Obi. 1 ♂ Halmaheira. 3 ♂ 1 ♀ Amboina. 1 ♀ 1 ♂ Gisser. 12 ♂ 2 ♀ Ceram.

(b). Unh band faint. A New Britain male has spots in spaces 2, 3 upf.

Sub-sp. **chalybeata** Joicey & Talbot 1917: ♂ Waigou: type B.M.

B.M. 4 ♂ Aru. 1 ♂ Salwatty. 3 ♂ 1 ♀ Waigou. 13 ♂ New Guinea. 1 ♂ New Hanover. 1 ♂ New Ireland. 2 ♀ New Britain.

A.4. BADAMIA Moore 1881: type *exclamationis* Fabricius: fixed by author.

1 (2). Above dark brown, bases paler. ♂ upf with whitish hyaline spots in spaces 2, 3 and cell: ♀ spots larger, yellower, also a spot in space 1b and 1 or more apical spots. Unh pale brown with a dark brown tornus surmounted by a whitish subtornal spot. ♂ F 29 mm. Cilia fuscous.

exclamationis Fabricius 1775: S. India. Fig Lep Ind; Seitz.

Synonyms. *ericus* Fabricius 1798: ♂ S. India.

ladon Cramer 1782: ♀ Coromandel: figured.

forulus Hübner 1819 = *ladon* Cramer.

thymbron Felder 1860: ♂ Amboina. Type B.M.

B.M. 5 ♂ 3 ♀ Ceylon. 8 ♂ 10 ♀ S. India. 1 ♀ Chitral. 9 ♂ 9 ♀ N. India. 8 ♂ 8 ♀ Sikkim. 8 ♂ 5 ♀ Assam. 8 ♂ 4 ♀ Burma. 2 ♀ Andamans. 6 ♂ 2 ♀ Siam. 1 ♀ S. China. 5 ♂ 4 ♀ Formosa. 1 ♀ Malaya. 2 ♂ 4 ♀ Java. 1 ♂ Bali. 7 ♂ 7 ♀ Borneo. 13 ♂ 5 ♀ Philippines. 10 ♂ 9 ♀ Celebes. 1 ♂ 1 ♀ Timor. 1 ♂ 1 ♀ Adonara. 1 ♂ Halmaheira. 5 ♂ 6 ♀ Ceram. 3 ♂ 1 ♀ Aru. 10 ♂ 2 ♀ New Guinea, etc. 1 ♂ New Britain. 5 ♂ Solomons. 12 ♂ 10 ♀ Australia (N.W. Darwin, N. Queensland to N.S. Wales). 2 ♂ 1 ♀ Tonga Is. 1 ♀ Samoa. 4 ♂ 6 ♀ Fiji. 2 ♂ New Hebrides.

2 (1). Smaller, ♂ F 23 mm. and yellower. ♂ upf spot in space 2 is not narrow and elongate. Cilia of ♂ grey, ♀ ochreous.

atrox. 4 sub-species.

(a). Above base F and most of H rather dusky ochreous. ♂ upf spots in spaces 2, 3 and cell small, equal, more or less rounded, traces of a spot in space 1b, as in ♀, usually an apical spot in space 8. ♀ upf spot in space 2 nearly quadrate. Unh ochreous brown, an obscure pale discal band and, in ♀, broadly and sharply paler ochreous outwardly.

Sub-sp. ***atrox** Butler 1877: ♀ Lifu: type B.M.
B.M. 5 ♂ 4 ♀ Lifu, Loyalty Is.
(b). ♂ above ochreous brown. ♀ base F and all H, except the outer margin much brighter ochreous. Unh ♀ much paler.

Sub-sp. **flava** Evans 1933: ♂ New Hebrides: type B.M.
B.M. 2 ♂ 3 ♀ New Hebrides.
(c). ♂ upf spot in space 2 across the space, as in ♀: always a dot mid space 1b near vein 1: very like *atrox*.

Sub-sp. **subflava** Waterhouse 1920: ♂ Fiji.
B.M. 2 ♂ 1 ♀ Fiji.
(d). ♀ near *subflava*, but upf the cell-spot is very large and the spot in space 2 is shaped more as in *exclamationis*. Unh internal to the subtornal spot, there is an ochreous streak tapering towards the base.

Sub-sp. **collenettei** Evans 1933: ♀ Marquesas Is. Type B.M.
B.M. Only the type.

A.5. CHOASPES Moore 1881: type *benjaminii* Guérin: fixed by author.

1 (2a). ♂ with brands upf under vein 4 and on either side of veins 3, 2 and 1, and uph above vein 2 and on either side of veins 3 and 4. ♂ F 25 mm. Cuiller of clasp with broad rounded tip and a beak on the inner side.

plateni. 5 sub-species.
(a). Uph orange tornal area narrow, 2 mm., as in all Indian forms of the species of this genus. ♂ above basally green: ♀ paler and extending to middle upf and on uph leaving a broad black border. Unh the tornal orange area comparatively broad, extending inwardly along vein 2 half-way to end cell: reaching nearly to vein 3 along the margin: the two black spots in space 2 are nearer to vein 3 than to vein 2.

Sub-sp. ***stigmata** Evans 1932: ♂ Assam: type B.M. ♂ fig Lep Ind. as *benjaminii*.

B.M. 21 ♂ 9 ♀ Sikkim. 12 ♂ 8 ♀ Assam. 1 ♀ Tonkin. 3 ♂ 4 ♀ Hainan.

(b). Uph yellow tornal area 4 mm. wide. Unh the black tongue does not extend tornally beyond the black spots in spaces 1c and 2. Tornus tailed.

Sub-sp. ***caudata** Evans 1932: ♂ Mergui: type B.M. Fig Staudinger 1888 as *benjaminii*; Lep Ind, ♂ as *crawfurdi.*

B.M. 2 ♂ Mergui. 2 ♂ Malaya. 17 ♂ 8 ♀ Sumatra. 9 ♂ 4 ♀ Nias. 6 ♂ 1 ♀ Banka. 14 ♂ 1 ♀ Borneo.

(c). Uph yellow tornal area 8 mm. in ♂ (10 mm. in ♀) with 2 black spots in space 1c. Unh yellow area nearly reaches vein 4. Tornus tailed.

Sub-sp. ***extensa** Evans 1932: ♂ Java: type B.M. Larva fig Rhop Java, plate 6/23b as a form of *subcaudata.*

B.M. 13 ♂ 14 ♀ Java. 1 ♂ Bali.

(d). Uph tornus lobed, yellow area 4 mm. ♂ above, purple blue with green bases. Unh yellow area reaches vein 4 and the black tongue is present.

Sub-sp. **adhara** Fruhstorfer 1911: ♂ Mindanao.

B.M. 1 ♂ 1 ♀ E. Mindanao.

(e). Uph tornus lobed, yellow tornal area as in *caudata*, but the two black spots are larger and detached. ♂ above purple blue.

Sub-sp. ***plateni** Staudinger 1888: ♂ Minahassa.

Synonymy. *renidens* Mabille 1891: ♀ Minahassa.

B.M. 2 ♂ 1 ♀ Celebes.

2a (1). ♂ without brands.

2b (4a). Cuiller of clasp with rounded tip and a beak, as in *plateni.*

2 (3). Unh tornal orange area not reaching vein 3. Above, ♂ and ♀ green or blue with darker borders: ♀ uph with the usual black borders.

benjaminii. 4 sub-species.

(a). Unh the orange area beyond the black tongue in space 1b as long as the tongue: shorter in other N. Indian forms and species. ♂ F 25 mm.

Sub-sp. ***benjaminii** Guérin 1843: ♂ Nilgiris. Fig Moore 1881.

B.M. 11 ♂ 6 ♀ Ceylon. 13 ♂ 4 ♀ S. India.

(b). ♂ above paler and more uniform. Unh the tornal orange area is narrow as in *xanthopogon*, rather than as *stigmata*, but the spots in space 2 are central as in *furcata*, not nearer vein 2 as in *xanthopogon*, nor nearer vein 3 as in *stigmata*.

Sub-sp. **japonica** Murray 1875: ♂ Japan: type B.M. Fig Seitz I.

B.M. 17 ♂ 14 ♀ Japan. 20 ♂ 6 ♀ W. China. 2 ♂ Yunnan. 1 ♀ Chekiang. 1 ♀ Hupeh. 8 ♂ 2 ♀ N.W. Himalayas (Kangra-Kumaon). 2 ♂ 1 ♀ Nepal. 3 ♂ Sikkim. 11 ♂ 4 ♀ Assam.

(c). Very much darker, particularly in the ♂.

Sub-sp. **formosana** Fruhstorfer 1911: ♂ Formosa: type B.M.

B.M. 14 ♂ 6 ♀ Burma (Maymyo to Ataran). 1 ♂ Siam. 2 ♂ Tonkin. 9 ♂ Formosa. 1 ♀ Palawan.

(d). H tailed. Uph tornal yellow area very extensive, from dorsum straight across to the termen at vein 2, unmarked. Otherwise like *caudata*.

Sub-sp. **pallida** Evans 1932: ♂ Sumatra: type Indian Museum, Calcutta.

B.M. None.

3 (2). Unh tornal orange area reaching to vein 4, inwardly turning red and penetrating to the origin of vein 2. ♂ F 30 mm.

iluensis. 2 sub-species.

(a). Unh the dark tongue reaching to the black spots. Above greener.

Sub-sp. **iluensis** Ribbe 1900: ♂ Ceram: figured.

B.M. 3 ♂ 7 ♀ Ceram.

(b). Unh the dark tongue shorter. Above bluer.

Sub-sp. **ornatus** Rothschild 1903: ♂ Kapaur: type B.M.: figured. Fig Seitz.

B.M. 13 ♂ 3 ♀ New Guinea.

4a (2). Cuiller of clasp without a beak on the ventral side.

4b (6). Clasp ending in a rounded disc.

4 (5). Tip of clasp turned over and, on the ventral side, the edge of the disc is expanded to a long oval with spined

edges. H tornus lobed. ♂ F 25 mm. ♂ above, uniform brown, no green scaling, but with some basal green hairs. ♀ above bases blue-haired, rest black. Unh tornal orange area narrower than in the other species and the black spots in space 2 against vein 2, far from vein 3.

***xanthopogon** Kollar 1844: ♂ Himalaya: figured.
Synonym. *similis* Evans 1932: ♂ Assam: type B.M.
B.M. 1 ♂ "Japan". 24 ♂ 8 ♀ W. China (Ta Tsien Lou, etc.). 2 ♂ 1 ♀ Yunnan. 4 ♂ 2 ♀ N.W. Himalayas (Kashmir to Kumaon). 1 ♂ Nepal. 7 ♂ Sikkim. 14 ♂ 9 ♀ Assam.

5 (4). Tip of clasp not turned over and edge of disc not expanded. H tornus tailed. ♂ F 27 mm. ♂ above green, outwardly turning indigo blue: ♀ much bluer and outwardly darker, on H having the usual broad black costal and outer border. Hind tibiae of ♂ with the comb holding the dorsal brush black instead of brown as usual.

subcaudata. 2 sub-species.

(a). Unh like *caudata*, but the black tongue is much longer, nearly to termen: uph black tornal area similarly produced.

Sub-sp. **crawfurdi** Distant 1886: ♂ Province Wellesley: type B.M.: figured. Fig Lep Ind ♀ correctly, but ♂ is *extensa*.
B.M. 6 ♂ 3 ♀ Burma (Karens to Mergui). 1 ♂ Malaya. 3 ♂ 1 ♀ Sumatra. 2 ♂ 2 ♀ Nias. 13 ♂ 13 ♀ Borneo.

(b). H tornal area like *extensa*, but in ♂ uph the conjoined black spots are directed to the tornus rather than to the dorsum: unh the tornal yellow area ends at vein 3 and the black tongue in space 1b is absent. ♀ uph like ♂, the black spots becoming a tongue as in *crawfurdi*.

Sub-sp. **subcaudata** Felder 1867: ♂ Java: type B.M.: figured. Fig Seitz; Rh Java, where larva also is figured on pl. vi, fig 23d (nec 23b).
B.M. 6 ♂ 6 ♀ Java.

6 (4b). Clasp broadening outwardly and with a large curved projection on the outer side.

hemixanthus. 4 very different sub-species with similar genitalia.

(a). Resembling *benjaminii*. ♂ above, pearly green to mid wing F, whence it is black with some indigo reflexion: on H the green colour extends to a black border along the costa and termen. ♀ similar, but the dark borders uph are broader. Unh as *benjaminii*, tornal area rather yellower and wider. ♂ F 24 mm.

Sub-sp. ***furcata*** Evans 1932: ♂ Sikkim: type B.M. ♀ Fig Lep Ind as *benjaminii*.

B.M. 1 ♂ 1 ♀ N. China. 1 ♂ Chekiang. 11 ♂ 2 ♀ W. Szechwan (Ta Tsien Lou). 3 ♂ Kiang Si. 2 ♂ Yunnan. 2 ♂ 1 ♀ Nepal. 44 ♂ 16 ♀ Sikkim. 1 ♂ Bhutan. 5 ♂ 4 ♀ Assam. 1 ♀ Burma, Karens. 1 ♂ Perak. 1 ♂ Siam. 1 ♂ 2 ♀ Hainan. 1 ♂ Palawan.

(b). H tailed. Above dark brown, bases very iridescent green. Uph tornal black tongue as in *extensa*. Unh tongue short, with single and double spot. ♂ 25 mm.

Sub-sp. **cora** Evans 1934: ♂ Sumatra: type B.M.

B.M. Only the type.

(c). H lobed. ♂ above, very dark green. Uph tornal pale orange area to vein 3 and unh to vein 5. Below ground colour bluer and veins more broadly black. ♂ F 27 mm.

Sub-sp. **mona** Evans 1934: ♂ Halmaheira: type B.M.

B.M. Only the type.

(d). H lobed. Uph tornal half of wing yellow. Unh yellow area extends to end cell inwardly and to vein 6 at termen, unmarked. ♂ F 27 mm.

Sub-sp. **hemixanthus** Rothschild 1903: ♂ Aroa Riv.: type B.M.: figured.

B.M. 19 ♂ 9 ♀ New Guinea.

B.1. EUSCHEMON Doubleday 1846: type *rafflesia* Macleay: sole species included.

Placed in group *Fraenati* by Mabille 1876.

In subfamily *Euschemoninae* by Waterhouse & Lyell 1914.

In family *Euschemonidae* (next *Castniidae*) by Lefroy 1923.

rafflesia. 2 sub-species.

(a). Upf the yellow band compact: apical blue scaling continued broadly to dorsum. Cilia F in space 1b and H in space 1c not narrowly white. Unf blue scaling continued broadly to tornus, completely obscuring the pale hyaline spot in space 1b. Unh with conspicuous blue scaling in space 1c beyond the pale discal band. ♂ F 29 mm.

Sub-sp. **viridis** Waterhouse 1933: ♂ Kuranda.
B.M. 21 ♂ 21 ♀ N. Queensland.
(b). Upf pale band more broken, cell spot separated from rest of band: apical blue scaling duller and restricted to apex. Cilia F in space 1b and H in space 1c narrowly white. Unf blue scaling not continued below vein 2 and hyaline spot in space 1b conspicuous. Unh blue scaling in space 1c very narrow and inconspicuous.

Sub-sp. **rafflesia** Macleay 1827: "Australia". Fig Waterhouse 1932 and Seitz.
White or partially white aberrations are not infrequent and have been named:
albo-ornatus Olliff 1891: ♂ Dunoon, Richmond Riv.
alba Mabille 1904: ♂ Cooktown: type B.M.
B.M. 28 ♂ 16 ♀ S. Queensland.

B.2. CHAETOCNEME Felder 1860: type *helirius* Cramer: type fixed by Butler 1870 as *corvus* Felder, which is a synonym of *helirius*.
Synonyms. *Casyapa* Kirby 1871: to replace *Chaetocneme*, wrongly considered to be preoccupied by *Chaetocnema*.
Phoenicops Watson 1893: type *denitza* Hewitson: fixed by author.

1a (5a). ♂ upf with conspicuous central hyaline spots.
1 (2a). ♂ uph with 2 large yellow spots in and beyond end of cell, above which the costa is yellow. Elsewhere black with narrow yellow hyaline spots upf. ♂ no costal fold. ♂ F 25 mm.

***kumpiana** Evans 1934: ♂ Mt. Kumpi, Weyland Mts., Dutch New Guinea: type B.M.
B.M. Only the type.

2a (1). Uph with at most small hyaline spots, costa not yellow.
2 (3a). ♂ ♀ upf always with hyaline apical spots in spaces

5 and 6, and usually also in 4. Uph veins grey. Unh with large black spots. Eyes red. No costal fold. ♂ F 26 mm.

denitza Hewitson 1867: ♂ Moreton Bay: type B.M. Fig Hewitson 1874; Seitz; Waterhouse 1932.
B.M. 15 ♂ 17 ♀ N. Queensland to Brisbane.

3a (2). ♂ ♀ upf no hyaline spot in space 6.
3 (4). ♂ no costal fold. ♂ upf apical spots, if present nearer to the spot in space 3 than to termen. ♀ upf central spots conjoined to a band, leaving a small dark triangle at base of space 3. Eyes red. ♂ F 30 mm.

beata Hewitson 1867: ♂ Australia: type B.M. Fig Hewitson 1874; Seitz; Waterhouse 1932.
B.M. 29 ♂ 17 ♀ N. Queensland to Sydney.

4 (3). ♂ upf with costal fold: a single conspicuous apical spot in space 5, placed midway between the spot in space 3 and termen, usually present in ♀ where the spots are not conjoined to a band. ♂ F 26 mm.

editus. 2 sub-species.
(a). ♂ variegated dark and bright fulvous: upf as *denitza*, but also a spot mid space 5 and a small upper spot in space 1b: uph like *beata*, with small hyaline dots mid cell and space 5: below more uniform than *beata*. ♀ dark brown with markings, which may be as in the figure of the type, longer or smaller: no two specimens seem alike. ♂ eyes red.

Sub-sp. **editus** Plötz 1885: ♀ Aru. Fig Swinhoe 1908; Seitz. Synonym. *stotharti* Rothschild 1915: ♀ Utakwa River: type B.M.
B.M. 1 ♂ 6 ♀ New Guinea.
(b). ♂ darker, more uniform, rendering conspicuous the central orange spot uph. ♀ as ♂.

Sub-sp. **trifenestrata** Fruhstorfer 1910: ♂ New Pomerania: type B.M.
B.M. 1 ♂ New Pomerania. 3 ♂ 1 ♀ New Ireland.

5a (1a). ♂ upf without hyaline spots: costal fold present.
5b (8a). Uph with more or less orange.

5c (7). Upf with a broad orange central band.

5 (6). Uph margin broadly orange, except at apex. ♂ F 30 mm.

critomedia. 4 sub-species.

(a). Upf orange band even, tapering to dorsum. ♂ uph orange bar end cell absent or faint. Unh orange area wide, extending upwards to vein 7 and downwards to vein 1a, but at termen the dark apical colouring extends narrowly to vein 2 and the cilia are brown correspondingly.

Sub-sp. **critomedia** Guérin 1831: ♂ Arfak: figured. Fig Seitz ♀, not ♂.

Synonyms. *odix* Boisduval 1832: ♂ Arfak.

latifascia Rothschild 1915: ♂ Utakwa River: type B.M.

waigeuensis Joicey & Talbot 1917: ♂ Waigou: type B.M.

subornata Mabille & Boullet 1919: ♂ Humboldt Bay.

B.M. 2 ♂ "Moluccas". 10 ♂ 3 ♀ Waigou. 5 ♂ 2 ♀ Mysol. 21 ♂ 14 ♀ New Guinea (Geelvink, Humboldt and Astrolabe Bays).

(b). Upf band irregular, spot in space 1b often reduced. ♂ uph orange bar end cell usually present. Unh orange area narrower, upwardly to vein 6 and downwardly not as far as vein 1a; at termen the dark apical colouring not reaching beyond vein 4 and cilia orange to end of vein 6. Darker.

Sub-sp. **caristus** Hewitson 1867: ♂ Aru: type B.M. Fig Rebel 1898.

B.M. 11 ♂ 4 ♀ Aru. 26 ♂ 8 ♀ New Guinea (Astrolabe range to East, Eilanden, Utakwa and Aroa Rivers. Milne Bay). 2 ♂ Sudest Is. 1 ♂ "Java".

(c). Like *caristus*, but upf with a conspicuous orange spot end cell and vague large spots interior to the band. Uph large orange spot end cell.

Sub-sp. **hydra** Evans 1934: ♂ Hydrographer Mts., New Guinea: type B.M.

B.M. 9 ♂ type loc., Kumusi River and Collingwood Bay.

(d). A small edition of *hydra*: ♂ F 26 mm., in *hydra* 31 mm.

Sub-sp. **sphinterifera** Fruhstorfer 1910: ♂ Cape York: type B.M. Fig Waterhouse 1932; Seitz as *critomedia* ♂.

B.M. 4 ♂ Cape York, N.E. Australia.

6 (5). Uph margin narrowly orange at apex only. Upf band centrally hyaline. ♂ costal fold very slender: hind tibiae without a hair pencil: aedeagus without the usual shield dorsally. ♂ F 29 mm.
porphyropis Meyrick & Lower 1902: ♂ N. Queensland. Fig Seitz; Waterhouse 1932.
B.M. 13 ♂ 4 ♀ N. Queensland.

7 (5c). Upf unmarked dark brown: uph outwardly orange. ♂ F 23 mm. H tibiae without hair pencil.
antipodes. 2 sub-species.
(a). Uph orange area broad, 6 mm.
Sub-sp. **antipodes** Guérin 1831: ♂ Dorey, New Guinea: figured.
Synonym. *dichroa* Boisduval 1832: ♂ New Guinea.
B.M. 5 ♂ Snow Mts., Utakwa River, New Guinea.
(b). Uph orange area narrow, 3½ mm.
Sub-sp. **biaka** Joicey & Talbot 1916: ♂ Biak, Schouten Is.: type B.M.
B.M. Only the type.

8a (5b). Uph plain brown.
8 (9a). ♂ ♀ upf with a broad orange discal band. ♂ F 29 mm.
callixenus. 2 sub-species.
(a). Upf band orange in ♂, yellow in ♀. Unh plain.
Sub-sp. **callixenus** Hewitson 1867: ♀ Dorey: type B.M. Fig. Hewitson 1874: Seitz ♀ (his ♂ is *critomedia*), ♂ (as *kallima*).
Synonym. *kallima* Swinhoe 1907: ♂ Milne Bay: type B.M. Fig Swinhoe 1908.
B.M. 2 ♂ Waigou. 3 ♂ 4 ♀ Dutch New Guinea (Geelvink Bay, Utakwa and Wangaar Rivers). 1 ♂ 3 ♀ Astrolabe range. 1 ♂ Aroa River. 9 ♂ 5 ♀ Milne Bay. 1 ♂ Aru.
(b). ♂ upf band yellow. Unh dorsal area broadly shaded yellow, ending along the margin in a double elongated spot in space 1c.
Sub-sp. **stringa** nov: ♂ Hydrographer Mts.: type B.M.
B.M. 4 ♂ type loc.

9a (8). ♂ upf unmarked or with a dull yellow band, not reaching costa or tornus. ♀ with a white band upf.

9 (10a). Large, ♂ 30–32 mm. ♂ cilia yellow, except in *sombra*.

helirius. 5 sub-species.

(a). ♂ unmarked, except for a more or less distinct black bar at end cell upf and traces of a pale band unh. Clasp with widely bident tip.

Sub-sp. **naevifera** Mabille 1888: ♂ Batchian: figured.
B.M. 15 ♂ 8 ♀ Batchian. 1 ♂ 1 ♀ Halmaheira. 2 ♂ 1 ♀ Gilolo.

(b). ♂ upf with a more or less well-developed band of 3 yellow spots separated by dark veins in spaces 2, 3 and cell (last two may be absent): unf band more conspicuous. Clasp with singly pointed recurved tip.

Sub-sp. **helirius** Cramer 1775: ♂ "Surinam" (probably Amboina): figured.
Synonyms. *corvus* Felder 1860: ♂ "Surinam": type B.M. Fig Felder 1867; Seitz ♂ and ♀.
cerinthus Felder 1860: ♀ "Surinam": type B.M. Fig Felder 1867.
aristippus Fruhstorfer 1910: ♂ Buru: type B.M.
B.M. 1 ♀ "Java". 16 ♂ 14 ♀ Amboina. 10 ♂ 10 ♀ Ceram. 7 ♂ 7 ♀ Buru. 4 ♂ Gisser. 2 ♂ Saparua. 2 ♂ "New Guinea". 1 ♂ Kei Is.

(d). ♂ like *naevifera* and same clasp form: veins above more darkened: unh with broad ochreous suffusion from base. ♀ unh dorsal half whitish.

Sub-sp. **dissimilis** Swinhoe 1905: ♂ German New Guinea: type B.M.
Synonyms. *corippus* Fruhstorfer 1910: ♂ Fergusson Is.: type B.M.
swinhoei Joicey & Talbot 1917: ♂ Waigou: type B.M.
B.M. 1 ♂ 1 ♀ Waigou. 1 ♀ Mysol. 1 ♂ 1 ♀ Mefor Is. 14 ♂ 12 ♀ New Guinea. 4 ♂ 2 ♀ Schouten Is. 3 ♂ Kiriwini. 1 ♂ Dampier. 14 ♂ 1 ♀ Fergussons. 1 ♂ Sudest. 1 ♂ Sariba.

(d). ♂ upf with a more or less well-developed broad, rather dull yellow, band, broader than in *helirius* and directed to the termen, as in all females, instead of to the dorsum, sometimes reaching tornus: unf band more conspicuous: unh dorsal half bright ochreous: clasp as in *dissimilis*. ♀ band broader: unh plain.

Sub-sp. **morea** Evans 1934: ♂ Astrolabe Range: type B.M.
B.M. 3 ♂ 1 ♀ type loc. 1 ♂ British New Guinea. 1 ♂ Eilanden R. 2 ♂ Utakwa R.
(e). ♂ without a costal fold upf: cilia brown: like *dissimilis*, there are indications of a band, as in *morea*. ♀ as *morea*. Clasp closely bident.

Sub-sp. **sombra** Evans 1934: ♂ New Mecklenburg: type B.M.
B.M. 1 ♂ type. 4 ♂ 2 ♀ New Britain. 2 ♂ 2 ♀ New Ireland.

10a (9). Much smaller, ♂ F 23–25 mm. Cilia brown.
10 (11a). ♂ uph and unh with a conspicuous yellow spot at end of cell. ♀ with a yellow band upf.

lunula Mabille 1888: ♂ Waigou: figured.
Synonym. *oetwakensis* Rothschild 1916: ♀ Utakwa R.: type B.M.
B.M. 5 ♂ Kapaur. 7 ♀ Geelvink Bay. 3 ♀ Humboldt Bay. 1 ♂ 1 ♀ Astrolabe Bay. 1 ♀ Menoo R. 1 ♂ 3 ♀ Utakwa R. 7 ♂ Aroa R. 1 ♂ Milne Bay. 1 ♂ 1 ♀ Waigou. 1 ♀ Mysol.

11a (10). ♂ uph and unh no conspicuous yellow spot at end cell: a narrow spot is rarely present in *tenuis*.
11 (12). Clasp with a short spine at the tip, as in *lunula*. Above and below unmarked.

triton. 2 sub-species.
(a). Above uniform.

Sub-sp. **triton** Boisduval 1832: ♂ New Guinea. Fig Seitz as *callixenus* ♂.
B.M. 2 ♂ Waigou. 4 ♂ Aroa R. 1 ♂ 2 ♀ Milne Bay. 1 ♀ Eilanden R.
(b). Above darker: veins darkened.

Sub-sp. **hibernia** Evans 1934: ♂ New Ireland: type B.M.
B.M. 2 ♂ Rook Is. 6 ♂ 6 ♀ New Britain. 3 ♂ 1 ♀ New Ireland.

12 (11). Clasp with a very much longer spine at the tip. ♂ above, rufous brown, upf broadly, uph narrowly dark brown: unf with distinct traces of a broad pale band, as in *morea*. ♀ upf with a white band.

tenuis van Eecke 1924: ♂ Prauwenbivak, Dutch New Guinea: figured.
B.M. 4 ♂ 4 ♀ Mysol. 2 ♂ 2 ♀ Waigou. 3 ♀ Geelvink Bay. 5 ♂ 3 ♀ Humboldt Bay. 3 ♂ Kapaur. 1 ♂ Wangaar R. 3 ♂ 3 ♀ Utakwa R. 2 ♀ Eilanden R. 5 ♂ 4 ♀ Astrolabe Range. 3 ♂ 6 ♀ Aroa R. 1 ♀ Kumusi R. 1 ♂ Collingwood Bay. 1 ♂ Hydrographer Mts. 16 ♂ 18 ♀ Milne Bay. 1 ♂ 1 ♀ Rook Is.

B.3. CAPILA Moore 1865: type *jayadeva* Moore: sole species included.
Synonyms. *Pisola* Moore 1865: type *zennara* Moore: sole species included.
Calliana Moore, 1878: type *pieridoides* Moore: sole species included.
Crossiura De Nicéville 1892: type *pennicillatum* De Nicéville: fixed by author.
Pteroxys Watson 1893: type *phanaeus* Hewitson: fixed by author: homonym by Hampson 1893.
Orthophoetus Watson 1895: to replace *Pteroxys*.

1a (4a). ♂ ♀ upf with conspicuous separated hyaline discal spots.
1b (3). Uph and unh with conspicuous dark spots.
1 (2). These spots large and yellow-ringed. ♂ with costal fold. ♂ F 29 mm. Spots upf, ♂ yellow, ♀ white.
lidderdali Elwes 1888: ♂ Sikkim or Bhutan: type B.M. Fig El & Ed 1897.
1 ♂ type, 1 ♀ Assam. (Duffla Hills).

2 (1). The dark spots uph and unh small, not yellow-ringed. ♂ F 29 mm. ♂ with one of the spurs of the lower pair on the hind tibiae very swollen. Eyes red in the paler forms. Cheeks, under palpi, concolorous with the pectus, not white, as in rest of genus. Clasps very variable.
phanaeus. 8 sub-species, some of which overlap.
(a). The first 6 forms have a well-marked costal fold upf. The first 3 forms have 3 hyaline apical spots. Above, dark ferruginous brown.

Sub-sp. **fiducia** nov: ♂ Khasi Hills: type B.M.
B.M. 4 ♂ Assam, Khasi Hills.
(b). Above, bright tawny.

Sub-sp. **lalita** Doherty 1888: ♂ Lushai Hills: type B.M. Fig Lep Ind, ♂ is *ferrea*, ♀ *fulva*.
B.M. 2 ♂ Manipur. 2 ♂ 1 ♀ N.W. Siam (Klong-Klung. Me Sai Song).
(c). Above, pale tawny, hyaline markings much enlarged and black-edged. Tip of clasp pointed, undivided: usually bifid or trifid.

Sub-sp. ***flora** Evans 1934: ♂ Maymyo: type B.M.
B.M. 4 ♂ 2 ♀ N. Shan States, Burma. 1 ♂ Thaungyin. 2 ♂ 1 ♀ W. Siam (Nam Phi, Me Chow Prae, Me Sai Sing).
(d). The next 3 forms have apical hyaline spots faint, dark or absent in ♂, present in ♀. Above bright tawny as *lalita*, grading from *lalita* to *falta*.

Sub-sp. **fulva** Evans 1932: ♂ Karens: type B.M.
B.M. 6 ♂ 8 ♀ Karens. 1 ♂ 1 ♀ Rangoon. 3 ♂ 3 ♀ Ataran. 1 ♂ W. Siam (Melamoung).
(e). Above ferruginous brown, grading from *fulva* to *ferrea*.

Sub-sp. **falta** nov: ♂ Kanbauk, Tavoy: type B.M.
B.M. 9 ♂ 4 ♀ Ataran. 1 ♀ Salween. 7 ♂ Tavoy. 4 ♂ 2 ♀ Mergui. 2 ♂ Siam (Krabin Bankeong, Khao Sabap, Chentabun).
(f). Dark brown, with only a slight ferruginous tinge, if any.

Sub-sp. **ferrea** Evans 1934: ♂ Perak: type B.M. Fig Rhop Malayana as *phanaeus*.
B.M. 6 ♂ 2 ♀ Malaya (1 ♂ has no costal fold).
(g). This and the next form have no costal fold. Above, plain brown, no ferruginous tint. Upf 3 hyaline apical spots, recalling *fiducia*. Smallest form, ♂ 25 mm.

Sub-sp. **quagga** Evans 1942: ♂ Siberut Is. Type B.M.
B.M. 1 ♂ Siberut Is. 1 ♂ Sipora Is.
(h). Above, dark ferruginous brown. Upf hyaline apical spots as in *fulva*.

Sub-sp. **phanaeus** Hewitson 1867: ♀ Sarawak: type B.M. Fig Seitz.
B.M. 1 ♀ Sumatra. 15 ♂ 1 ♀ Borneo.

3 (1b). Uph and unh dark spots suffused or absent. ♂ no costal fold. Upf spots white, only a single conspicuous spot in space 1b. ♂ F 30 mm.

omeia Leech 1894: ♂ Omeishan: type B.M.: figured.
B.M. 19 ♂ 16 ♀ W. China (Ta Tsien Lou, etc.).

4a (1a). ♂ ♀ without conspicuous separated hyaline spots upf. ♂ upf no costal fold.

4 (5a). ♂ ♀ with hyaline white apical spots and a continuous discal band upf. ♂ uph with a projecting hair tuft at end of vein 4.

pennicillatum. 3 sub-species, which may prove inseparable.

(a). ♂ F 30 mm. Unf 5 (♀ 4) apical spots, band 2 mm., from costa to space 1a.

Sub-sp. **pennicillatum** De Nicéville 1892: ♂ Khasi Hills: figured. Fig Seitz.
B.M. 6 ♂ 2 ♀ Khasi Hills.

(b). ♂ F 27 mm. Unf 3 (♀ 4) apical spots, band 1½ mm., not to costa nor to space 1a. ♀ uph and unh with conspicuous black spots.

Sub-sp. **insularis** Joicey & Talbot 1921: ♂ Hainan: type B.M.: figured.
B.M. 2 ♂ 2 ♀ Hainan.

(c). ♂ F 26 mm. Upf 3 opaque apical spots vestigial, unf band shorter and broader.

Sub-sp. **kiyila** Fruhstorfer 1914: ♂ Canton: type B.M.
B.M. Only the type.

5a (4). ♂ ♀ without apical spots upf.

5 (6a). ♂ above mostly white. ♀ brown, upf with large discal white spots extending to costa. ♂ upf no costal fold. ♂ F 30–33 mm.

pieridoides. 4 sub-species.

(a). F apex pointed. ♂ upf a black spot mid space 1b. Uph only a black discal spot in space 6.

Sub-sp. **chinensis** Evans 1932: ♂ Pu Tsu Fong, W. China: type B.M. Fig Leech 1894.
B.M. Only the type.

(b). F apex rounded. ♂ upf no spot in space 1b. Uph black discal spots in spaces 3 to 7.

Sub-sp. **pieridoides** Moore 1878: ♂ N.E. Bengal: type B.M.: figured. ♀ fig. De Nicéville 1891.

B.M. 26 ♂ 5 ♀ Khasi Hills. 1 ♂ Manipur. 1 ♂ Lushai Hills. 1 ♀ Ataran.

(c). ♂ upf cell darkened and veins dark to apex, which is broader.

Sub-sp. **sofa** Evans 1934: ♂ Selangor-Pahang border: type B.M.

B.M. Only the type.

(d). ♂ upf apex entirely black to end cell: basal half of cell darkened.

Sub-sp. **adamsi** Evans 1932: ♂ Kina Balu : type B.M.

B.M. 5 ♂ Borneo.

6a (5). ♂ not mostly white, above. ♀ upf with a broad white band.

6b (9). ♂ above, with grey streaks between the veins.

6 (7a). These streaks not reaching the termen and enlarged in spaces 2 and 3 upf to large hyaline spots. ♀ uph and unh with faint grey streaks. ♂ F 30 mm.

translucida Leech 1894: ♂ Omeishan: type B.M.: figured.

Synonym. *pussa* Hering 1918: ♀ China.

B.M. 2 ♂ 2 ♀ W. China.

7a (6). These streaks all narrow and reaching the termen.

7 (8). ♂ above, head, thorax and wing bases brown: wings squarer, dorsum F > termen. ♀ upf band narrow and constricted at veins. ♂ ♀ antennal apiculus short. ♂ F 31 mm. ♀ H striping absent.

zennara Moore 1865: ♀ N.E. Bengal: type B.M. Fig Lep Ind; Seitz as *jayadeva.*

B.M. 15 ♂ 15 ♀ Sikkim. 2 ♂ Bhutan. 3 ♂ Manipur.

8 (7). ♂ above, head, thorax and wing bases orange: wings produced, dorsum F = termen. ♀ H striping conspicuous. ♂ F 30 mm.

jayadeva Moore 1865: ♂ Darjiling: type B.M.: figured (fig. of ♀ = ♂ *zennara*). Fig Lep Ind; figs in Seitz are *zennara.*

B.M. 7 ♂ 5 ♀ Sikkim. 13 ♂ 15 ♀ Assam.

9 (6b). ♂ above without grey streaks: upf with a large white spot before end of cell. ♀ with a broad white band upf, as in *jayadeva*, at costa not much wider than in cell. ♂ F 33 mm.

hainana. 2 sub-species.

(a). ♂ paler. ♀ band regular.

Sub-sp. **mackwoodi** Evans 1914: ♂ Maymyo: type B.M.
B.M. 11 ♂ 13 ♀ Burma, Momeit to Ataran.

(b). ♂ darker. ♀ band irregular, dislocated at vein 4.

Sub-sp. **hainana** Crowley 1900: ♀ Hainan: type B.M.
Synonym. *barroni* Riley & Godfrey 1923: ♂ S.E. Siam: type B.M.: figured.
B.M. 1♂ 4 ♀ S.E. Siam. 1 ♀ Hainan.

B.4. LOBOCLA Moore 1884: type *liliana* Atkinson: fixed by author.

1a (7). Palpi grey below. Upf with 3 apical spots, in spaces 6, 7 and 8.

1b (6). Upf spots in spaces 4 and 5, if present, nearer to the apical spots in spaces 6 to 8 than to the termen.

1 (2a). Upf central spots conjoined to a compact band from costa to vein 1 at tornus. Cilia F dark except at apex and tornus.

liliana. 5 sub-species.

(a). In the first 2 sub-species the end of the uncus is straight and not bent. The western form is paler with a narrow central band, 2½ mm. wide, and usually it stops short in the middle of space 1b. ♂ F 23 mm.

Sub-sp. **ignatius** Plötz 1882: ?loc.
Synonym. *casyapa* Moore 1884: ♂ Mussoorie: type B.M. Fig Lep Ind.
B.M. 17 ♂ 7 ♀ N.W. Himalayas (Murree to Kumaon).

(b). Upf band broad, 5 mm. wide. ♂ F 24 mm.

Sub-sp. **liliana** Atkinson 1871: ♂ W. Yunnan: figured. Fig Lep Ind; Seitz I.
B.M. 2 ♂ Sikkim. 35 ♂ 10 ♀ Assam. 1 ♂ 1 ♀ N. Shan St. 4 ♂ 9 ♀ S. Shan St. 16 ♂ 16 ♀ Karen Hills. 1 ♂ 1 ♀ Ataran. 1 ♂ Siam. 1 ♂ Indo-China (Laos). 2 ♀ Yunnan.

(c). In the last 3 sub-species the end of the uncus is short and bent: band as in *liliana.* Upf band yellow. ♂ F 23 mm.

Sub-sp. **aborica** Tytler 1915: Abor Valley: type B.M.: figured.
B.M. 2 ♂ Abor Valley.
(d). Unh white semi-hyaline spot in space 3. Band pale yellow.

Sub-sp. **zesta** nov: ♂ Momeit, N. Burma: W. Doherty: type B.M.
B.M. 3 ♂ type loc.
(e). Only differs from *liliana* in the short uncus and, as in the case of the last 3 sub-species, the obsolescence of the spots in spaces 4 and 5 upf: ♂ F 24 mm.

Sub-sp. **tonka** nov: ♂ Ngai Tio, Tonkin: H. Stevens: type B.M.
B.M. Only the type.

2a (1). Upf the central band broken into spots and does not extend beyond the middle of space 1b. Cilia F chequered throughout.
2b (4a). Upf spot in space 3 approximate to the central band.
2 (3). Upf spot in space 3 overlaps the spot in space 2. Unf dorsum generally broadly white to middle of space 1b. Unf with grey scaling at the apex from termen to apical spots. Very variable in respect of size, ♂ F 18–24 mm., width of band, which is sometimes yellow, and width of markings.

bifasciatus Bremer & Grey 1853: ♂ Pekin. Fig Ménétriés 1855: Oberthür 1886: fig in Seitz is of *contractus.*
Synonym. *kodairi* Sonan 1936: ♀ Formosa: figured. ? a worn stray.
B.M. 2 ♂ 2 ♀ Amur. 6 ♂ 4 ♀ Korea. 2 ♂ 2 ♀ Shansi. 1 ♂ N. Shensi. 11 ♂ 6 ♀ Hupeh. 1 ♂ 1 ♀ Chekiang. 39 ♂ 22 ♀ W. China (Mupin, Ta Tsien Lou, etc.). 21 ♂ 5 ♀ Tse Kou. 5 ♂ 3 ♀ Yunnan (Tali, Li Kiang, etc.). 1 ♂ Mekong.

3 (2). Upf spot in space 3 just does not overlap spot in space 2. Unf dorsum (space 1a) brown, but space 1b may be whitish. Unf grey scaling before termen narrow and extending further towards tornus. ♂ F 22 mm. Top of clasp serrate at tip of cuiller and not along greater part of upper edge.

contractus Leech 1894: ♂ Wa Ssu Kow: type B.M.: figured. The fig. reproduced in Seitz I as *bifasciatus*; Seitz I Supp. B.M. 62 ♂ 17 ♀ W. China, flying with *bifasciatus*.

4a (2b). Upf spot in space 3 midway between the spots in spaces 4 and 5 and the central band. ♂ F 20–23 mm.

4 (5). Unh dark markings conspicuously contrasting with the paler ground colour and the lower edge of the dark discal spot in space 4 prolonged inwards to end of cell.

germanus Oberthür 1886: ♂ Ta Tsien Lou: type B.M.: figured. Fig in Seitz I.
B.M. 47 ♂ 32 ♀ W. China. 7 ♂ 8 ♀ Yunnan.

5 (4). Unh dark markings not conspicuously contrasting, much paler, and the dark discal spot in space 4 not produced inwards.

nepos. 2 sub-species.

(a). Above markings narrow, spot in space 3 narrower than the distance from it to the spot in space 2 or 4. Unh ground colour grey.

Sub-sp. **nepos** Oberthür 1886: ♂ Ta Tsien Lou: type B.M.: figured. Fig in Seitz I.
B.M. 60 ♂ 24 ♀ W. China. 3 ♂ 1 ♀ Szechwan. 15 ♂ 6 ♀ Yunnan (Tse Kou and Li-kiang).

(b). Above markings broad, spot in space 3 broader than the distance from it to the spot in space 2 or 4. Unh ground colour brown.

Sub-sp. **phyllis** Hemming 1933: ♂ Ho Ko, Kham (midway between Ta Tsien Lou and Batang).
Synonym. *frater* Alphéraky 1897: homonym by Oberthür 1891.
B.M. 4 ♂ 5 ♀ Yunnan (Wei Hsi Ting and Yunnan Fou).

6 (1b). Upf spots in spaces 4 and 5 nearer to the termen than to the apical spots in spaces 6 to 8. Unh markings conspicuously white-edged, spot in space 5 ferruginous. ♂ F 22 mm.

proximus Leech 1891: ♂ Pu Tsu Fong: type B.M. Fig Leech 1891; Seitz I; Seitz I Supp. as *frater*.
Synonym. *frater* Oberthür 1891: ♂ Yunnan: type B.M.: figured.
B.M. 29 ♂ 3 ♀ W. China. 6 ♂ 2 ♀ Yunnan (Tse Kou, Li-kiang).

7 (1a). Palpi black below. Upf with 4 apical spots in spaces 6 to 9. Below dark brown, markings faint, outwardly broadly grey. ♂ F 20 mm.
simplex Leech 1891: ♂ Ta Tsien Lou: type B.M.: figured. Fig Seitz I.
Synonymy. *gener* Oberthür 1891: ♂ Yunnan: type B.M.: figured.
B.M. 83 ♂ 33 ♀ W. China. 13 ♂ 3 ♀ Yunnan (Li-kiang, Tali, Tse Kou, A Tun Tse, Teng Yueh Ting). 1 ♀ S.E. Thibet (Rong To Valley).

B.5. CHARMION De Nicéville 1894: type *ficulnea* Hewitson: fixed by author.

Single velvet black species unmarked except for a white or yellow central band upf. ♂ F 19–21 mm.
ficulnea. 5 sub-species.
(a). White band narrow, in ♂ 4 mm. at vein 3, crossing cell, but not entering space 1b. Wings produced.
Sub-sp. **queda** Plötz 1885: ♀ Malacca. Fig Seitz ♀; Lep Ind ♂ only, as *ficulnea*.
Synonym. *nibana* Fruhstorfer 1910: ♂ Sumatra: type B.M.
B.M. 2 ♂ Naga Hills. 3 ♂ 1 ♀ S. Mergui, Burma. 1 ♂ Peninsular Siam. 13 ♂ 2 ♀ Malaya. 21 ♂ 12 ♀ Sumatra.
(b). Similar but band wider, ♂ 5 mm. at vein 3.
Sub-sp. **ficulnea** Hewitson 1868: ♂ Borneo: type B.M. Fig Lep Ind, ♀ only.
Synonym. *signata* Druce 1873: ♂ Borneo: type B.M.: figured.
B.M. 25 ♂ 22 ♀ Borneo.
(c). Smaller: band not crossing cell, wherein it is absent or represented by a lower, detached spot.

Sub-sp. **niasica** Mabille 1913: ♂ Nias: type B.M.
Synonym. *ovalis* Mabille 1913: ♂ Nias.
B.M. 15 ♂ Nias.
(d). Band extends into space 1b and across cell. Wings rounded.

Sub-sp. **tola** Hewitson 1878: ♂ Tondano: type B.M. Fig Seitz.
Synonyms. *zawi* Plötz 1885: ♂ Celebes.
plesioneurae Staudinger 1888: ♀ Minahassa: figured.
B.M. 32 ♂ 4 ♀ Celebes. 1 ♀ Ternate.
(e). Band yellow to orange, crosses cell and sometimes enters space 1b. Wing shape of *tola*. Smaller.

Sub-sp. **crona** Hewitson 1878: ♂ Batchian. Type B.M.
Synonym. *batchianus* Elwes & Edwards 1897: ♂ Batchian: figured.
B.M. 7 ♂ 2 ♀ Batchian. 1 ♂ Halmaheira. 1 ♂ Obi. 1 ♂ Buru.

B.6. CELAENORRHINUS Hübner 1819: type *eligius* Stoll: fixed by Scudder 1875.
Synonyms. *Ancistrocampta* C. & R. Felder 1862: type *syllius* C. & R. Felder: sole species included.
Hantana Moore 1881: type *spilothyrus* Felder: fixed by author as *infernus* Felder, which is a synonym of *spilothyrus*.
Gehlota Doherty 1889: type *sumitra* Moore: fixed by Watson 1893.
Apallaga Strand 1891: type *mokeezi* Wallengren: only species included was *separata* Strand which is a synonym of *mokeezi*.

1a (32). Upf with central pale spots or a band (♂ *spilothyrus* is aberrant and the key is based on the ♀).
1b (26a). Upf the central spots or band white.
1c (12a). Upf with a pale or dark spot in the basal part of space 1b (in Formosa, where all the known species belong to this group, this spot is frequently absent: in *pyrrha* it is very small or vestigial).
1d (3a). Upf spot in space 3 mid spots in spaces 2 and 4.
1 (2). Upf inner spot in space 1b black. Unh orange with black spots. ♂ antennae club and shaft white. ♂ F 27 mm.

flavocincta De Nicéville 1887: ♂ Bhutan: figured. Fig Lep Ind; Seitz.
B.M. 2 ♂ Sikkim. 3 ♂ Bhutan.

2 (1). Upf inner spot in space 1b hyaline white. Unh brown with yellow spots. ♂ antennae club and shaft white or broadly white chequered: ♀ club white, shaft narrowly chequered. ♂ F 28 mm.

aspersa Leech 1891: ♂ Chia Kou Ho: type B.M. Fig Leech 1894; Seitz I.
Synonym. *clitus* De Nicéville 1891: ♂ Nagas: type B.M.: figured. Fig Lep Ind.
B.M. 1 ♂ 1 ♀ Szechwan (Chia Kou Ho, Tien Tsuen). 5 ♂ Naga Hills. 3 ♂ 3 ♀ N. Burma (Bernardmyo, Momeit). 1 ♀ Hainan.

3a (1d). Upf spot in space 3 approximate to the spot in space 2.
3b (5a). Below with more or less developed basal yellow striping, at least visible before dorsum unh. Antennae, base of club white, shaft plain.
3 (4). Upf apical spots subequal and in a straight line.

maculosa. 2 sub-species.
(a). Markings conspicuous. ♂ F 24 mm.
Sub-sp. **maculosa** Felder 1867: ♂ Shanghai: type B.M.: figured. Fig Seitz I; Leech 1894.
Synonym. *refulgens* Oberthür 1896: ♀ Siao Lou: type B.M.: figured. An aberration.
B.M. 3 ♂ Mongolia. 1 ♂ Shanghai. 1 ♀ Fukien. 9 ♂ 9 ♀ Hupeh. 3 ♂ 5 ♀ Chekiang. 46 ♂ 37 ♀ W. Szechwan (Ta Tsien Lou area, Kwan Shien).
(b). Markings reduced, particularly the inner spot in space 1b upf, which may be absent, and the striping below, which is absent unf and reduced unh. ♂ F 22 mm.
Sub-sp. **taiwanus** Matsumura 1919: ♀ Formosa: figured.
B.M. 2 ♂ 3 ♀ Formosa.

4 (3). Upf apical spots irregular and unequal, spot in space 6 elongate, nearer termen, and spot in space 7 minute. Much smaller, ♂ F 19 mm. Uph discal spot present in space 7. Unf basal striping more intense. Clasp ending in a bent-over point.

***oscula** nov: ♂ Tien Tsuen: P. Dejean: type B.M.
B.M. 10 ♂ 6 ♀ Ta Tsien Lou area (Moupin, Omeishan, Siao Lou, Ya Tchao).

5a (3b). Below without basal striping.
5 (6a). Uph and unh submarginal spots conjoined and connected to termen by yellow veins. ♂ F 18 mm.

kiku Hering 1918: ♀ Tsha Jiu Shan: figured.
B.M. None. Possibly an aberration of *maculosa* or *consanguinea.*

6a (5). Uph and unh submarginal spots not conjoined.
6b (9a). Unf in space 1b a double pale spot beyond the double discal spot. Antennae base club white, shaft chequered.
6c (8). Cilia more or less conspicuously white chequered on both wings.
6 (7). Uph discal spots more or less blurred. Two seasonal forms. WSF uph and unh all markings blurred. DSF all markings unh and submarginal spots uph sharply defined. ♂ F 25 mm.

ambareesa Moore 1865: ♀ Manbhoom (Purulia), Bengal: type B.M. Fig Lep Ind; Seitz.
B.M. 1 ♀ "Ceylon" (? wrong label). 15 ♂ 12 ♀ DSF, 16 ♂ 16 ♀ WSF, S. India. 2 ♂ DSF Pachmarhi, Centr. Prov. 2 ♂ 1 ♀ Chota Nagpur, Centr. India. 1 ♀ WSF "Bengal" (type).

7 (6). Uph and unh spots bright yellow, sharply defined. ♂ F 22 mm.

consanguinea Leech 1891: ♂ Omei Shan: type B.M.: Fig Leech 1894; Seitz I.
B.M. 22 ♂ 11 ♀ W. Szechwan (Ta Tsien Lou area). 5 ♂ Yunnan (Tali).

8 (6c). Cilia F plain dark brown: H chequered yellow. ♂ F 25 mm.

pyrrha De Nicéville 1889: ♂ Bhutan: figured. Fig Lep Ind. B.M. 3 ♂ 4 ♀ Sikkim. 2 ♂ 2 ♀ Bhutan. 15 ♂ 15 ♀ Assam. 1 ♂ N. Burma (Momeit). 1 ♂ 5 ♀ S. Shan St. 1 ♀ Cochin China.

9a (6b). Unf in space 1b no double spot beyond the double discal spot.

9b (11); ♂ ♀ only basal half of club white, shaft chequered or plain dark brown. Cilia H yellow, conspicuously chequered.

9 (10). ♂ ♀ apex F rounded, termen < dorsum. Unh superscaling basal, leaving discal spots clear. Abdomen striped.

ratna. 3 sub-species.

(a). Uph and unh spots much reduced, no outer spot in space 7. Upf spots much enlarged and in both the central and apical series the spots are conjoined. ♂ F 21 mm.

Sub-sp. **daphne** nov: ♀ "Sikkim" (recte Kumaon): type B.M.: figured Lep Ind pl. 758/4 a and 4c as *pulomaya* ♀. 3 ♂ 2 ♀ N.W. Himalayas (Kumaon).

(b). Uph and unh yellow spots complete and conspicuous. ♂ F 23 mm.

Sub-sp. **tytleri** Evans 1926: ♂ Nagas: type B.M. ♀ Fig Seitz I, pl. 84c and Evans 1926 and 1932 as ♀ *pulomaya*. B.M. 17 ♂ 16 ♀ Sikkim. 17 ♂ 18 ♀ Assam.

(c). Upf as *tytleri*, but the spot near base space 1b and the lower discal spot in the same space absent in ♂: present as dots in ♀ and present unf in ♂ and ♀. Unf in ♀ there is a single spot in space 1b beyond the discal double spot. ♂ F 23 mm.

Sub-sp. **ratna** Fruhstorfer 1909: ♀ Formosa: type B.M. Fig Matsumura 1931 as *consanguinea*.

Synonym. *clio* Mabille 1914: ♂ Formosa: type B.M. B.M. 2 ♂ 4 ♀ Formosa.

10 (9). ♂ ♀ apex F produced, termen = dorsum. Unh superscaling covers entire wing evenly rendering the yellow spots much duller. Genitalia very different, uncus and clasps undivided.

pulomaya. 2 sub-species.

(a). Closely resembles *tytleri*. Upf lower spot in space 1b always smaller than the upper spot. Uph spots conspicuous and complete. ♂ F 24 mm.

Sub-sp. **pulomaya** Moore 1865: ♂ Sikkim: type B.M. ♂ fig Lep Ind, pl. 758/4 and 4b: other figures of *pulomaya* are *ratna* or *pero* q.v.

Synonym. *pila* Tytler 1915: ♂ Manipur: type B.M.

B.M. 4 ♂ 2 ♀ N.W. Himalayas. 33 ♂ 10 ♀ Sikkim. 2 ♂ 1 ♀ Bhutan. 31 ♂ 6 ♀ Assam. 1 ♂ Lo Tse Kiang, Yunnan.

(b). Much darker and smaller, ♂ F 19 mm. Uph markings reduced, only a bar at end cell and 3 post-discal spots. Upf inner spot in space 1b obsolete in ♂, vestigial in ♀: unf usually just traceable.

Sub-sp. **formosanus** Fruhstorfer 1909: ♀ Formosa: type B.M.

B.M. 5 ♂ 4 ♀ Formosa.

11 (9b). ♂ ♀ entire antennal club and shaft white. H cilia broadly yellow, only faintly chequered at end of veins. Wings produced. Apex upf usually narrowly whitish.

pero. 2 sub-species.

(a). ♂ F 24 mm. Markings H reduced and paler.

Sub-sp. **pero** De Nicéville 1889: ♂ "India": figured. Fig Lep Ind; Seitz.

B.M. 18 ♂ 3 ♀ Mussoorie and Kumaon.

(b). ♂ F 28 mm. Markings H darker and larger.

Sub-sp. **lucifera** Leech 1894: ♀ Moupin: type B.M.: figured. Reproduced Seitz I as *pulomaya*.

B.M. 1 ♂ Sikkim. 2 ♂ 1 ♀ Naga Hills. 1 ♀ Moupin.

12a (1c). Upf no pale or dark spot in basal part of space 1b.

12b (19a). Upf the cell spot placed midway between the base and the apex of the wing. Unh with sharply defined yellow spots.

12c (15a). ♂ ♀ antennal shaft chequered: club and apiculus white in ♂, basal part of club only white in ♀. Uph with yellow spots. Cilia H conspicuously chequered yellow and brown.

12 (13a). Upf upper spot in space 1b completely overlapped by the spot in space 2. Otherwise resembles

plagifera: smaller, ♂ F 23 mm. and uph spots darker and less developed. Genitalia abnormal: uncus reduced to 2 long narrow arms: tip of cuiller very long and bent over the style.

morena nov: ♂ Naga Hills, 6,000 ft.: W. Doherty: Aug. 1889: type B.M.
B.M. 2 ♀ Sikkim. 6 ♂ 8 ♀ Manipur and Naga Hills.

13a (12). Upf upper spot in space 1b external to spot in space 2.
13 (14). Uph spot end cell conspicuous as well as all the spots unh: generally a discal and basal spot in space 7. Genitalia normal. ♂ F 27 mm.

plagifera De Nicéville 1889: ♀ Sikkim: figured. Fig Lep Ind. Synonym. *moelleri* Evans 1932: ♂ Sikkim: type B.M. An aberration.
B.M. 15 ♂ 13 ♀ Sikkim. 2 ♂ 1 ♀ Bhutan. 5 ♂ 2 ♀ Assam. 3 ♂ Sadon, N. Burma. 1 ♂ Tempang, S.E. Thibet.

14 (13). Upf no spot at end cell, only the post-discal spots. Upf the central spots narrow and in line. ♂ F 28 mm.

sumitra Moore 1865: ♀ N.E. Bengal: type B.M. Fig Lep Ind, but the artist has accentuated the spot end cell uph, which in the original specimen (in B.M.) is vestigial.
B.M. 3 ♂ 3 ♀ Sikkim. 1 ♂ Manipur. 3 ♂ 1 ♀ Maymyo. N. Shan States.

15a (12c). ♂ antennal shaft and club white: ♀ generally the club is white and the shaft plain brown, never chequered, but in *patula* and *entellus* the white colouring often extends along the club, even to its base.
15b (17a). Wings not produced, dorsum F > termen.
15 (16). Abdomen striped. Upf cell spot not continued above radius. Cilia H yellow, more or less narrowly chequered at end veins. The variation displayed by this species appears to be ecological rather than geographical. At one extreme there is typical *patula*, very large, ♂ F 27 mm.: upf apical spots in spaces 4 to 8 large, subequal and approximate: central spots small, spots in spaces 1b and 3 reduced and detached: uph spots orange, large.

At the other extreme is the small (♂ F 22 mm.) dry season form from mid-Burma: upf spots in spaces 4 and 5 small and detached: central spots large and upper spot in space 1b overlapped by the spot in space 2: uph spots small and pale. In the Naga Hills *patula* seems to reach its maximum development and the DSF seems absent. In the Ta Tsien Lou area the prevailing form is like *patula*: specimens from Omei Shan (*chinensis* (♂) and *pluscula* (♀)) are smaller, dark examples of the DSF described above. In Sikkim all forms occur. In Burma the WSF is like *chinensis*. Style of clasp longer than cuiller.

patula De Nicéville 1889: ♂ Sikkim: ♀ figured. Fig reproduced Lep Ind. ♂ fig Leech 1894 (reproduced Seitz I) as *sumitra* and Swinhoe 1908 as *chinensis*: ♀ fig Leech 1894 as *pluscula*.

Synonyms. *pluscula* Leech 1894: ♀ Omei Shan: type B.M.: figured. *chinensis* Swinhoe 1907: ♂ Omei Shan: type B.M.

B.M. 23 ♂ 19 ♀ W. Szechwan (Ta Tsien Lou, Siao Lou, Tien Tsuen, etc.). 10 ♂ 4 ♀ Omei Shan. 2 ♂ Chin Fu Shan. 2 ♂ N. Yunnan. 9 ♂ 10 ♀ Sikkim. 2 ♂ 2 ♀ Assam. 24 ♂ 9 ♀ Manipur and Naga Hills. 7 ♂ 5 ♀ Momeit, N. Burma. 7 ♂ 4 ♀ S. Shan St. 4 ♂ 2 ♀ Karen Hills. 1 ♂ W. Dawnas.

16 (15). Abdomen unstriped, dark brown. Upf cell spot generally continued above radius. Cilia H outwardly white, basally yellow, chequered at ends of veins. Style and cuiller of clasp subequal. There are 2 well-marked seasonal forms: WSF uph with subequal small discal and post-discal spots: DSF with a single large spot at end of cell. ♂ F 22 mm.

leucocera Kollar 1848: ♀ Himalayas: figured. Fig Lep Ind.

Synonym. *arminia* Plötz 1884 = *leucocera*. *vitruvius* Fruhstorfer 1910: ♀ Siam: type B.M.

B.M. 22 ♂ 22 ♀ S. India to Centr. Prov. 12 ♂ 9 ♀ N.W. Himalayas (Murree to Kumaon). 23 ♂ 22 ♀ Sikkim. 4 ♂ 1 ♀ Bhutan. 9 ♂ 14 ♀ Assam. 25 ♂ 12 ♀ Burma to Tavoy. 6 ♂ 13 ♀ Siam. 5 ♂ Tonkin. 2 ♀ Hainan. 7 ♂ 12 ♀ Andamans.

17a (15b). Wings produced, dorsum F = termen. Abdomen unstriped. Upf cell spot not continued above radius.

17 (18). Upf upper spot in space 1b adjoining outer angle of spot in space 2. Cilia H brown or chequered whitish and brown.

putra. 5 sub-species.

(a). Uph with small but distinct yellow spots. Cilia H comparatively conspicuously chequered. ♂ F 24 mm.

Sub-sp. **putra** Moore 1865: ♂ Bengal: type B.M. Fig Lep Ind; Seitz.

B.M. 4 ♂ 2 ♀ Sikkim. 1 ♂ 1 ♀ Bhutan. 19 ♂ 10 ♀ Assam.

(b). Uph spotting faint. Cilia more narrowly chequered. ♂ F 21 mm.

Sub-sp. **sanda** Evans 1941: ♂ Dawnas: type B.M.

B.M. 18 ♂ 2 ♀ Burma (Karens to Victoria Point). 1 ♂ 1 ♀ Malaya.

(c). Larger ♂ F 24 mm., darker, uph unmarked. Cilia H very narrowly chequered.

Sub-sp. **questa** nov: ♂ S.W. Sumatra, Liwa, 1,400 m., Sept.: W. Doherty: type B.M.

B.M. 13 ♂ 6 ♀ Sumatra.

(d). ♂ F 21 mm., very like *sanda*: uph usually unmarked. Upf spots in spaces 3, 4 and 5 often absent.

Sub-sp. **piepersi** Fruhstorfer 1909: ♂ W. Java: type B.M. Fig Rhop Java as *leucocera*.

Synonym. *parva* Evans 1932: ♂ Java: type B.M.

B.M. 15 ♂ 16 ♀ Java.

(e). ♂ F 25 mm., like *questa*, but spots larger and cilia plain brown.

Sub-sp. **brahmaputra** Elwes & Edwards 1897: ♂ Kina Balu: type B.M. Fig in Seitz.

B.M. 17 ♂ 16 ♀ Borneo.

18 (17). Upf upper spot in space 1b far removed from the spot in space 2 and the spot in space 2 separated from the cell spot. Uph unmarked except for a dull yellow bar at end of cell. Cilia H broadly yellow, narrowly chequered. ♂ F 23 mm.

entellus Hewitson 1867: ♂ Java: type B.M. Fig Rhop Java as *sumitra*.

Synonyms. *simula* Hewitson 1877: ♂ Sumatra: type B.M. *angustipennis* Elwes & Edwards 1897: ♂ Java: type B.M. *binotatus* Fruhstorfer 1909: ♀ Java: type B.M.
B.M. 3 ♂ 2 ♀ Sumatra. 31 ♂ 11 ♀ Java.

19a (12b). Upf cell spot distinctly nearer to apex than to base. Antennal shaft not white. Uph plain or obscurely marked.

19b (24a). Upf cell spot continued to costa.

19c (22a). Upf spot in space 2 from before origin of vein 3 and conjoined to the cell spot at least up to the origin of vein 3.

19d (21). Cilia H entirely white or pale yellow between the darkened ends of the veins.

19 (20). Apex H brown beyond the end of vein 8. Antennal club conspicuously white in front.

munda. 3 sub-species.

(a). Upf spot in space 3 completely conjoined to the spots in cell and in space 2, sometimes leaving a tiny brown triangle at base of space 3: upper spot in space 1b overlapped by spot in space 2 and the lower spot, diagonally inwards, always present unf and often upf. Unh unmarked except for a pale bar at end cell. ♂ F 20 mm.

Sub-sp. ***munda** Moore 1884: ♂ Simla: type B.M.
B.M. 17 ♂ 8 ♀ N.W. Himalayas (Murree, Simla). 8 ♂ Sikkim.

(b). Upf spot in space 3 small and detached: spots in space 1b smaller, but present unh. Unh usually a series of small yellow discal spots in addition to the bar end cell. ♂ F 22 mm.

Sub-sp. **maculicornis** Elwes & Edwards 1897: ♂ Khasi: type B.M.: figured: Fig Lep Ind; Seitz.
B.M. 2 ♂ Sikkim. 15 ♂ 10 ♀ Assam. 7 ♂ 4 ♀ Burma (to Karen Hills).

(c). Exactly like *munda*, but the central band upf entirely compact, running across space 1b as a single spot. Very closely resembling *tibetana* which flies with it.

Sub-sp. **joka** nov: ♂ Tsekou, Yunnan: P. Dubernard 1898: type B.M.
B.M. Only the type.

20 (19). Apex H white from end of vein 7 to costa well beyond end of vein 8. Upf band compact from costa to vein 1. Antennal club only whitish on inside. Genitalia abnormal. ♂ F 21 mm.

tibetana Mabille 1876: Thibet. Fig Leech 1894; Seitz I. Synonym. *latifascia* Mabille & Boullet 1919: ♂ Thibet. B.M. 37 ♂ 31 ♀ W. Szechwan and Yunnan. 1 ♂ S.E. Thibet (Tsira). 1 ♂ Mt. Victoria, Chin Hills, N. Burma.

21 (19d). Cilia H narrowly whitish between ends of veins, or entirely brown. Upf spot in space 3 completely conjoined to the band: only an upper spot in space 1b against the outer angle of the spot in space 2. Unf no inner spot in space 1b. Unh with faint, suffused markings. Antennal club white in front. End of clasp not nearly so deeply and widely cleft as in *munda* and style as thick or thicker than cuiller.

nigricans. 3 sub-species.

(a). Upf band narrow. Unf the spot in space 1b continued by a suffused equal-sized spot to end of vein 1. ♂ F 20 mm.

Sub-sp. **nigricans** De Nicéville 1885: ♂ Sikkim: figured. Fig Lep Ind; Seitz I.

B.M. 1 ♂ 1 ♀ Sikkim. 2 ♂ 2 ♀ Bhutan. 7 ♂ 5 ♀ Assam. 1 ♂ 1 ♀ S. Shan St. 3 ♂ 5 ♀ Karens. 2 ♂ 2 ♀ Ataran. 3 ♂ Tavoy. 1 ♀ Mergui. 1 ♂ W. Siam.

The ♀ from the S. Shan St. is a large aberration.

(b). Darker. Upf band very wide, 4 mm. Cilia H brown. Unf with a double suffused white spot exterior to and separated from the discal spot in space 1b. ♂ F 20 mm.

Sub-sp. **balukinus** Elwes & Edwards 1897: ♀ Kina Balu: type B.M.: figured. Fig Seitz.

B.M. 18 ♂ 1 ♀ Borneo.

(c). Exactly like *balukinus* except the outer half of the spot in space 2 is absent and the cilia H very narrowly white between the dark veins. Genitalia as *balukinus*. Perhaps an aberration.

Sub-sp. **orbiferus** Elwes & Edwards 1897: ♂ Kina Balu: type B.M.: figured. Fig Seitz.

B.M. 1 ♂ Kina Balu, Borneo.

22a (19c). Upf spot in space 2 from origin of vein 3, separated from cell spot: spot in space 3 also separate.
22 (23). Antennae plain brown. ♂ aberrant, black, unmarked except for a small yellow cell spot and 3 apical spots upf. ♀ uph 2 spots in space 1b arranged as in *munda*, an upper outer spot and a lower inner one. Genitalia abnormal. ♂ F 21 mm.

spilothyrus Felder 1868: ♀ Ceylon: type B.M. Fig Lep Ceylon; Lep Ind; Seitz—♂ as *infernus*, ♀ as *spilothyrus*.
Synonyms. *infernus* Felder 1868: ♂ Ceylon: type B.M.
B.M. 22 ♂ 21 ♀ Ceylon.

23 (22). Antennal shaft chequered, club white in ♂, white at base in ♀. Unf no inner, lower spot in space 1b: the upper spot followed by a more or less developed tornal whitish area. ♂ F 20 mm.

ruficornis. 3 sub-species.
(a). Uph with large suffused dark spots and unh with obscure suffused yellow spots. Cilia H narrowly white, chequered.

Sub-sp. **fusca** Hampson 1889: ♂ Nilgiris: type B.M. Fig Lep Ind as *area*.
B.M. 29 ♂ 29 ♀ S. India (Palnis, Animalais, Coorg, Nilgiris, N. Kanara).
(b). Very similar: darker and uph the dark markings obsolete.

Sub-sp. **ruficornis** Mabille 1878: ♀ Java: type B.M. Fig Rhop Java as *chamunda*.
B.M. 20 ♂ 19 ♀ Java.
(c). As last, but discal spot in space 1b always more conspicuous.

Sub-sp. **area** Plötz 1885: ♂ Celebes: copy MS. fig in B.M. Plötz also gave Bengal as the locality, based on a specimen, now in B.M., marked "*area*" by Herrich-Schäffer, which agrees with Celebes specimens.
Synonyms. *anoma* Fruhstorfer 1909: ♂ Celebes: type B.M.
celebica Evans 1932: ♂ Celebes: type B.M.
B.M. 21 ♂ 19 ♀ Celebes.

24a (19b). Upf cell spot not continued above radius.

24 (25). Upf central white band narrow, continuous to vein 1. H cilia broadly yellow unchequered. Unh unmarked except for a yellow bar at end cell. Antennae yellowish at base of club, shaft plain brown. ♂ F 27 mm. Genitalia abnormal.

badia Hewitson 1877: ♂ Sikkim: type B.M. Fig Lep Ind. B.M. 5 ♂ 4 ♀ Sikkim. 1 ♂ Bhutan. 1 ♂ 1 ♀ Assam.

25 (24). Upf central white band compact, not continued below vein 2 and spot in space 3 projecting: unf no spot in space 1b, but a more or less well-developed tornal whitish patch. Uph with obscure, suffused, large dark spots and unh with traces of suffused paler markings. H cilia brown. Antennae plain brown. ♂ F 20 mm.

asmara. 3 sub-species.

(a). Wings less produced, ♂ F dorsum > termen and H quadrate mid termen. Varies from a dark WSF (*consertus*) to a pale ochreous brown DSF (*cacus*, *aditta*) with the apical spots upf reduced.

Sub-sp. **consertus** De Nicéville 1890: ♂ Khasi Hills, WSF: figured. Fig Lep Ind as *asmara*.

Synonyms. *cacus* De Nicéville 1890: ♂ Rangoon, DSF: figured.

aditta Fruhstorfer 1909: ♂ Siam, DSF: type B.M.

B.M. 5 ♂ 4 ♀ Assam. 2 ♀ N. Shan St. 14 ♂ 4 ♀ Karens. 4 ♂ 6 ♀ Rangoon. 3 ♂ 2 ♀ Ataran. 9 ♂ 9 ♀ Tavoy. 8 ♂ 5 ♀ Mergui. 3 ♂ 3 ♀ Siam. 1 ♂ Indo-China.

(b). ♂ wings produced, F dorsum = termen and termen H evenly curved. A single variable form.

Sub-sp. **asmara** Butler 1877: ♂ Malacca: type B.M. Fig Distant.

Synonyms. *goto* Mabille 1883: ♀ "Japan" (recte Java): type B.M. Fig Leech 1894 and reproduced as *asmara* in Seitz I.

milinda Fruhstorfer 1909: ♀ Java: type B.M Fig Seitz as *milinda*, reproduced from a fig in Rhop Java (as *asmara*) of a specimen transitional to *palajava*.

ayata Fruhstorfer 1909: ♀ Sumatra: type B.M.

B.M. 5 ♂ 5 ♀ Malaya. 6 ♂ 3 ♀ Sumatra. 14 ♂ 6 ♀ Java.

(c). Like *asmara*, but unf the tornal white area bifid, sharply defined and conspicuous.

Sub-sp. **palajava** Staudinger 1889: ♀ Palawan: figured.
B.M. 3 ♂ 3 ♀ Borneo. 1 ♂ 2 ♀ Palawan. 1 ♂ Celebes.

26a (1b). Upf the central spots or band yellow to orange.
26b (30a). Upf edges of central band irregular. Uph usually with dark, suffused markings and unh with small suffused ochreous spots. Cilia H often narrowly chequered.
26c (29). Upf central yellow band opaque above radius to costa and usually also at the tornus.
26 (27a). Upf upper spot in space 1b small and triangular, placed under the centre of the spot in space 2: band compact. Unf the spot in space 1b submerged in a large tornal yellow spot. Cilia H unchequered. Genitalia aberrant, nearer to *asmara* than any other species. ♂ F 18 mm.

zea Swinhoe 1909: ♀ Khasi Hills: type B.M. Fig Lep Ind; Seitz.
B.M. 2 ♂ Sikkim. 1 ♂ 2 ♀ Assam.

27a (26). Upf upper spot in space 1b at or near outer angle of the spot in space 2. The genitalia of the next 10 forms indicate a close affinity: their association as species or subspecies may have to be modified.
27 (28). Style of clasp not longer than cuiller and not bifid.

dhanada. 9 sub-species.
(a). Band compact in all but last 2 forms. Cilia H narrowly chequered in first 2 forms. Unf the tornal yellow often ill developed and not appearing upf. Antennal club yellow banded at base, club and cilia chequered. Style of clasp pointed. ♂ F 20 mm.

Sub-sp. **dhanada** Moore 1865: ♂ Bengal: type B.M. Fig Moore 1878; Lep Ind; Seitz.
B.M. 1 ♂ 1 ♀ N.W. Himalayas (Mussoorie, Kumaon). 7 ♂ 4 ♀ Sikkim. 1 ♂ 5 ♀ Bhutan.
(b). Similar but upf with a broad yellow tornal spot as on unf. Style of clasp broader and with a rounded end.

Sub-sp. **affinis** Elwes & Edwards 1897: ♂ Karens: type B.M. figured. Fig Lep Ind; Seitz.

B.M. 9 ♂ 10 ♀ Assam. 17 ♂ 23 ♀ Burma to Karens.

(c). Like *affinis*, but much smaller, ♂ F 17 mm. Cilia H plain. Cuiller of clasp with a single long point: style short and hooked.

Sub-sp. **hanna** nov: ♂ Kanbauk, Tavoy: April 1924: type B.M.

B.M. 1 ♂ 2 ♀ Tavoy, S. Burma.

(d). Like *hanna*, but upf, as in *dhanada*, only the upper hyaline spot in space 1b is present. Unh the yellow spots better marked than in any other sub-species.

Sub-sp. **andamanica** Wood Mason & De Nicéville 1881: ♂ Andamans. Fig Lep Ind.

B.M. 8 ♂ 3 ♀ Andamans.

(e). In the next three forms the cuiller is deeply bifid as in *dhanada*, but the style is long, as long as the cuiller, and hooked, ending in a long fine point: band darker orange. Upf band 4 mm. wide: dot in space 4 (and sometimes in space 5): upper spot in space 1b short and inside the outer angle of the spot in space 2, no tornal yellow spot. Unf tornal yellow spot present, but usually separated from the hyaline band. H cilia plain. Base of antennal club whitish and shaft chequered. ♂ F 20 mm.

Sub-sp. **hersa** nov: ♂ Sumatra: type B.M.

B.M. 3 ♂ 2 ♀ Sumatra.

(f). Upf band 5 mm. wide: no dots in spaces 4 or 5: spot in space 1b continued to vein 1, conjoined to a large tornal spot in ♀, which in ♂ is represented by some separated tornal yellow scaling. ♂ F 20 mm.

Sub-sp. **lativittus** Elwes & Edwards 1897: ♂ Kina Balu: type B.M.: figured. Fig Seitz.

B.M. 21 ♂ 4 ♀ Borneo.

(g). Similar except that the tornal yellow spot from unf does not appear upf and is much reduced unf. Its genitalia are identical with *lativittus*, whereof it may be an aberration, seasonal or local form.

Sub-sp. **dentatus** Elwes & Edwards 1897: ♂ Kina Balu: figured. Fig Seitz.

B.M. 1 ♂ 1 ♀ Kina Balu.

(h). In the last two forms the band is broken into spots exactly as in *saturatus*, but the spots are paler and the spot in space 3 is widely separated from the cell spot. Genitalia as in *lativittus*, but the style is shorter. ♂ F 20 mm. In *sema* the spot in space 2 upf is widely separated from the cell spot. Cilia H narrowly chequered.

Sub-sp. ***sema** Evans 1926: ♂ Java: type B.M. (*nomen nudum*, Moore 1857).
B.M. 12 ♂ 10 ♀ Java and Bali.

(i). Only differs from *sema* in the spot in space 2 upf being much larger and completely overlapping the cell spot.

Sub-sp. **snelleni** Fruhstorfer 1909: ♂ S. Celebes: type B.M.
B.M. 29 ♂ 14 ♀ Celebes.

28 (27). Style of clasp longer than cuiller and bifid: uncus seen ventrally V-shaped, not U-wise as in *dhanada*. Upf band divided into spots, spot in space 3 contiguous to cell spot: spots dark orange. ♂ F 20 mm.

saturatus Elwes & Edwards 1897: ♂ Java: type B.M.: figured. Fig Rhop Java as *dhanada*; Seitz.
B.M. 24 ♂ 21 ♀ Java.

29 (26c). Upf central orange band entirely hyaline from costa to tornus: opaque tornal yellow spot absent upf and unf. ♂ F 21 mm. Band compact. Cuiller of clasp very short, style stout.

inaequalis. 2 sub-species.

(a). Upf without spots in spaces 4 and 5: there is a tendency for the apical spots to be reduced.

Sub-sp. **irene** Evans 1941: ♂ Gunong Ijau, Perak: type B.M.
B.M. 1 ♂ Malaya. 1 ♂ Sumatra. 5 ♂ Borneo.

(b). Upf with spots in spaces 4 and 5: apical spots fully developed.

Sub-sp. **inaequalis** Elwes & Edwards 1897: ♂ Java: figured. Fig Seitz.
B.M. 2 ♀ Java.

30a (26b). Upf edges of central compact band regular. Uph and unh unmarked, except for a dull yellow cell bar unh. Antennae and cilia H plain.

30 (31). Upf central band not extending beyond end cell. H tibiae without the hair pencil present in all the other species in the genus.

aurivittata. 5 sub-species.

(a). Upf band yellow, apical spots present. Two seasonal forms occur. DSF large, ♂ F 23 mm., band wide and regular. WSF, ♂ F 19 mm., band narrower and more irregular.

Sub-sp. **aurivittata** Moore 1865: ♂ Meetan: type B.M.: figured. Fig Lep Ind; Seitz.

B.M. 16 ♂ 5 ♀ Assam. 40 ♂ 25 ♀ Burma to Ataran. 7 ♂ 6 ♀ Siam. 1 ♀ Szechwan. 4 ♂ 1 ♀ Indo-China. 1 ♂ Andamans.

(b). Upf band orange, 4 mm. wide: apical spots present. ♂ F 20 mm.

Sub-sp. **cameroni** Distant 1882: Penang: Fig Distant 1884.

1 ♂ S. Mergui, Burma. 2 ♂ Peninsular Siam.
1 ♂ 1 ♀ Langkawi Is. 12 ♂ 12 ♀ Malaya.

(c). As *cameroni*, rather larger: apical spots usually absent.

Sub-sp. **mahaca** Fruhstorfer 1916 (July): ♂ Sumatra: type B.M.

Synonym. *sumatranus* Mabille & Boullet 1916 (Oct.): ♂ Sumatra.

B.M. 8 ♂ 8 ♀ Sumatra.

(d). Upf discal band very narrow, 3 mm., and constricted at vein 1: apical spots absent.

Sub-sp. **simalurensis** Van Eecke 1918: ♂ Simalur: figured.

B.M. None.

(e). Upf band very broad, 5 mm.: apical spots present: ♂ F 19 mm.

Sub-sp. **vimana** Fruhstorfer 1910: ♂ Kina Balu.

B.M. 2 ♂ Borneo.

31 (30). Upf central band extending well beyond end cell, the spotless apical dark area narrower than the band. ♂ F 20 mm.

ladana Butler 1870: ♀ Borneo: type B.M. Fig Butler 1874; Seitz.

Synonym. *vaijrada* Fruhstorfer 1911: ♂ Borneo: type B.M.

B.M. 2 ♂ 1 ♀ Malaya. 13 ♂ 14 ♀ Borneo.

32 (1a). Upf unmarked dark brown. Unh tornal two-thirds yellow with large dark spots. Antennae and cilia plain.

bazilanus. 2 sub-species.

(a). Large, ♂ F 22 mm.: uph unmarked: abdomen unstriped.

Sub-sp. **paradoxus** Fruhstorfer 1909: ♂ Lawas, Borneo: type B.M.

B.M. Only the type.

(b). Small, ♂ F 18 mm.: uph tornal quarter yellow with a jagged interior edging: abdomen yellow striped.

Sub-sp. **bazilanus** Fruhstorfer 1909: ♂ Bazilan: type B.M.

B.M. 2 ♂ 1 ♀ Bazilan, Philippines.

C.1. NETROCORYNE Felder 1867: type *repanda* Felder: sole species included.

1 (2). Uph with a hyaline cell spot. Head with a tawny spot behind the base of each antenna. ♂ ♀ hind tibiae fringed. ♂ F 22 mm.

repanda. 2 sub-species.

(a). ♂ upf the large central hyaline spots conjoined. ♀ upf white streak on costa over cell spot extending beyond the cell spot on either side. Darker.

Sub-sp. **expansa** Waterhouse 1932: ♀ Kuranda.

B.M. 8 ♂ 4 ♀ Kuranda, N. Queensland.

(b). ♂ upf central cell spots separate. ♀ upf the streak above the cell spot shorter than the spot.

Sub-sp. **repanda** Felder 1867: ♂ Moreton Bay: type B.M.: figured. Fig Seitz; Waterhouse 1932.

Synonym. *vulpecula* Prittwitz 1868: ♂ New Holland.

B.M. 15 ♂ 8 ♀ Queensland. 19 ♂ 14 ♀ N.S.Wales.

2 (1). Uph no hyaline spot. Head with a white spot behind each antenna. ♂ hind tibia with a recumbent hair pencil. ♂ unmarked dark brown except small hyaline white spots upf. ♀ unf with the submarginal spots enlarged and extended to vein 1: unh white except for broad dark brown costal and terminal border. ♂ F 22 mm.

***thaddeus** Hewitson 1876: ♀ Papua: type B.M.

Synonyms. *hymenaeus* Hewitson 1876: ♂ Aru: type B.M.

abstrusus Fruhstorfer 1910: ♂ Dutch New Guinea: type B.M.

B.M. 1 ♂ Obi, N. Moluccas. 1 ♂ Aru. 20 ♂ 7 ♀ New Guinea.

C.2. TAPENA Moore 1881: type *thwaitesi* Moore: sole species included.

thwaitesi. 3 sub-species.

(a). Clasp with tip not bifid and only a single lower spine. ♂ F 16 mm. WSF ♂ (*thwaitesi*) more or less uniform dark brown. DSF ♂ (*hampsoni*) paler with more or less conspicuous dark bands.

Sub-sp. **thwaitesi** Moore 1881: ♂ Ceylon: type B.M.: figured. Fig Lep Ind; Seitz ♀.

Synonym. *hampsoni* Elwes & Edwards 1897: ♂ Nilgiris: type B.M.: genitalia figured. Fig Seitz ♂.

B.M. 6 ♂ 1 ♀ Ceylon. 42 ♂ 29 ♀ S. India (Coorg, Nilgiris, N. Kanara, Khandesh).

(b). Clasp like *thwaitesi*, but with 2 lower spines. There are 2 well-marked seasonal forms, which are very like *thwaitesi*.

Sub-sp. **minuscula** Elwes & Edwards 1897: ♂ N. Burma: type B.M.: genitalia figured.

B.M. 2 ♂ Manipur. 3 ♂ Bernardmyo, N. Burma. 2 ♂ N. Shan States. 5 ♂ Ataran. 1 ♂ Tavoy. 7 ♂ Siam.

(c). Clasp bifid at tip and with single lower spine. There seems to be only one seasonal form, like *thwaitesi*.

Sub-sp. **bornea** Evans 1931: ♂ Perak: Jan.–Feb. 1890: W. Doherty: type B.M.: figure of genitalia by Elwes & Edwards 1897 as *thwaitesi*.

B.M. 5 ♂ Malaya. 3 ♂ Sumatra. 9 ♂ Borneo.

C.3. DARPA Moore 1865: type *hanria* Moore: sole species included.

1 (2a). Termen F and H highly crenulate. Upf cell spot peculiar: continued upwards to above vein 12 and, downwards, branched to 2 spots in space 2. Uph with submarginal black dots in spaces 2 and 3 on the pale tornal area, which is cream in ♂, white in ♀. ♂ F 17 mm.

hanria Moore 1865: ♂ Sikkim: type B.M.: figured. Fig Lep Ind; Seitz.
B.M. 35 ♂ 1 ♀ Sikkim. 4 ♂ 1 ♀ Assam. ♂ 1 S. Shan States.

2a (1). Termen not crenulate. Upf 2 dots in cell and all hyaline spots small. Uph tornal area white in ♂ and ♀.
2 (3). Uph with 2 submarginal black spots in spaces 2 and 3. ♂ F 17 mm.

striata. 2 sub-species.
(a). Wings broader. Uph pale streaks on dark area more conspicuous. Unh white area more extensive, so that the black spotting is also more extensive: the discal row of 4 spots from space 1b to space 3 always present and conspicuous.

Sub-sp. **minta** nov: ♂ Sebong, Manipur: March 1913: H. C. Tytler.
B.M. 7 ♂ Manipur. 5 ♂ 2 ♀ N. Shan St. 5 ♂ 2 ♀ Karens.
(b). Wings narrower, apex F and tornus H produced. Uph pale streaks less prominent. Unh costal dark area broader: discal spots in spaces 1b to 3 usually absent. Specimens from Manipur and Borneo are readily separable, but in the area between there is intergrading.

Sub-sp. ***striata** Druce 1873: ♂ Borneo: type B.M.
Synonym. *dimidiata* Fruhstorfer 1910: ♂ N. Borneo: type B.M.
B.M. 20 ♂ S. Burma (Ataran to Mergui). 1 ♀ Siam. 2 ♂ Malaya. 7 ♂ 1 ♀ Sumatra. 1 ♀ Nias. 15 ♂ 1 ♀ N. Borneo.

3 (2). Uph tornal white area unmarked.

pteria. 2 sub-species.
(a). Small ♂ F 15 mm.

Sub-sp. **dealbata** Distant 1886: ♂ Malacca: figured. Fig Lep Ind.
B.M. 1 ♀ Assam. 1 ♂ Tavoy. 6 ♂ 3 ♀ Malaya. 1 ♂ Sumatra. 2 ♀ Java. 3 ♂ 3 ♀ Borneo.
(b). Much larger, ♂ F 20 mm.

Sub-sp. **pteria** Hewitson 1868: ♀ Philippines: type B.M. Fig Hewitson 1873; Seitz.
B.M. 1 ♂ 1 ♀ Mindanao. 1 ♀ Philippines.

C.4. ODINA Mabille 1891: type *hieroglyphica* Butler: sole species included was *chrysomelaena* Mabille, which is considered to be a sub-species of *hieroglyphica.*

1 (2). Above and below orange with black spots, except on the outer third upf, which is black traversed throughout by a narrow zigzag pale line. ♀ yellow. ♂ F 17 mm.

decoratus Hewitson 1867: ♂ Sylhet: type B.M. Fig Hew 1873; Lep Ind; Seitz.

Synonym. *bicolor* Oberthür 1893: ♂ Tonkin: type B.M.: figured.

B.M. 2 ♂ Sikkim. 4 ♂ 1 ♀ Assam. 27 ♂ 2 ♀ Burma (to Tavoy). 3 ♂ Siam. 4 ♂ Tonkin.

2 (1). Above and below black with more or less extensive orange (♀ yellow) areas. ♂ F 17 mm.

hieroglyphica. 5 sub-species.

(a). Above appearing pale orange divided into large geometrical areas by narrow black lines. Uph and unh costa orange to beyond middle.

Sub-sp. **ortygia** De Nicéville 1895: ♂ Tenasserim: figured. Fig Lep Ind.

B.M. 1 ♂ Ataran. 1 ♂ Tavoy. 1 ♂ Mergui. 1 ♀ Victoria Point, Burma.

(b). Darker and dark lines broader. Uph and unh costa black except at base.

Sub-sp. **ortina** Evans 1931: ♂ Perak: type B.M. Fig as *hieroglyphica* Distant 1886: Lep Ind.

B.M. 2 ♂ 1 ♀ Perak.

(c). Still darker, black areas as wide as the orange ones.

Sub-sp. **hieroglyphica** Butler 1870: ♂ Sarawak : type B.M.

B.M. 2 ♂ 3 ♀ Sumatra. 3 ♂ 1 ♀ Borneo.

(d). Like *hieroglyphica*, but upf discal spots in spaces 2 and 3 form a narrow rectangle, instead of being extended towards the termen: between these spots and the termen there are a series of broad yellow streaks: sub-apical spots are also contracted and do not extend into space 5.

Sub-sp. **cuneiformis** Semper 1892: ♂ Mindoro: figured. Fig in Seitz.

B.M. 1 ♂ Luzon. 1 ♂ Philippines.

(e). ♂ greatly modified: above, black with very shaded reduced orange spots arranged as in *hieroglyphica*: uph black, with only a single orange spot mid costa: unh there are a few additional orange spots. ♀ upf with spots as in ♀ *hieroglyphica*, but paler and smaller: uph with the ochreous spots in 3 rows, 3 basal, 4 central and 8 submarginal spots.

Sub-sp. **chrysomelaena** Mabille 1891: ♂ Macassar.
Synonym. *sulina* Evans 1932: ♀ Sula Besi: type B.M.
B.M. 9 ♂ 1 ♀ Celebes. 1 ♀ Sula Besi.

C.5. COLADENIA Moore 1881: type *indrani* Moore: fixed by author.

1 (2a). Unh dark brown with more or less suffused tawny spots. ♂ ♀ hind tibiae fringed. Uncus of a peculiar type, widely divided, with outer side processes and what appears to be a shield at the back. Locally variable in respect of wing-shape, size and arrangement of the central spots upf, as well as in the shape of the clasp.

dan. 11 sub-species.

(a). In the first 4 sub-species the central spots upf are contiguous (*fatih* type). In *dea* these spots are very large, deep yellow and completely conjoined in the ♂, but in the ♀ they are white and separated (*dan* type). ♂ upf apical spots broad and conjoined. Wings broad, large, ♂ F 23 mm. Apex of clasp elongated to a long spine.

Sub-sp. **dea** Leech 1894: ♂ Pu Tsu Fong: type B.M.: figured. Fig Seitz I.
B.M. 56 ♂ 8 ♀ W. Szechwan (Siao Lou, Ta Tsien Lou, Moupin).

(b). ♂ ♀ spots upf white or nearly so, contiguous, not conjoined: spot in space 2 extending to before origin of vein 3, but spot in space 3 not reaching that point. Ground colour rather dull tawny above and the dark spots rather conspicuous, intermediate, as is the clasp form, between *festa* and *fatua*. ♂ F 18 mm.

Sub-sp. **fatih** Kollar 1844: ♂ Mussoorie: figured. Fig Lep Ind; Seitz (seems nearer *fatua*).
B.M. 17 ♂ 8 ♀ N.W. Himalayas (Kangra to Nepal).

(c). *fatih* continues in a slightly modified form into the E. Himalayas. Darker: upf central spots more conjoined, pale yellow in ♂, white in ♀. ♂ 18 mm. Clasp broad, oblique, evenly curved. A very variable form.

Sub-sp. **festa** nov: ♂ Kirbari, Naga Hills: 6,000 ft.: Oct. 1912: H. C. Tytler: type B.M.

B.M. 8 ♂ Sikkim. 1 ♀ Bhutan. 1 ♂ 1 ♀ Khasi Hills. 2 ♂ Manipur. 11 ♂ 2 ♀ Naga Hills. 9 ♂ 2 ♀ W. Szechwan (Toy Tou Ho, Chia Kou Ho, Washan, Ta Tsien Lou). 5 ♂ Yunnan. 18 ♂ 1 ♀ N. Burma (Sadon, Bernardmyo, Bhamo, Momeit, Kambaiti). 6 ♂ 1 ♀ S. Shan St. 1 ♂ Karens. 1 ♀ Ataran.

(d). Smaller, ♂ 16–17 mm., bright reddish above: central spots upf as in *fatih*, which it closely resembles, differing in being redder, smaller and with more produced wings. It occurs in much the same areas as *festa*, but at lower elevations and in the plains is replaced by *fabia*. Clasp narrow and more angled.

Sub-sp. **fatua** nov: ♂ Sikkim, Gangtok: Summer 1884: Bretaudeau: type B.M.

B.M. 16 ♂ 3 ♀ Sikkim. 1 ♂ Bhutan. 1 ♂ Lushai. 1 ♀ Sylhet. 4 ♂ 1 ♀ Khasi Hills. 4 ♂ 1 ♀ Manipur (2–4,000 ft.). 2 ♂ Naga Hills. 1 ♂ Ruby Mines, N. Burma.

(e). In the next 4 sub-species the central spots are not conjoined: the spot in space 2 does not extend beyond the origin of vein 3 in the ♂, while in the ♀ it is well in advance of that point: the spots are yellow in the ♂ and white in the ♀. Typical *dan* is distinguished by having the lower limb of the cell spot much prolonged: in the ♀ the spot may be completely divided into an upper dot and a lower streak. The dry season form is paler and duller, with reduced markings. ♂ F 17 mm. Clasp like *fatih*, but much narrower.

Sub-sp. **dan** Fabricius 1787: Tranquebar: Fig Lep Ind.

B.M. 23 ♂ 20 ♀ S. India (Travancore to N. Kanara and Mysore).

(f). Like *dan*, but the cell spot upf is larger, less excavate and the upper and lower limbs subequal. Wings broader. Two slightly differentiated seasonal forms. ♂ F 16–18 mm.

Sub-sp. **fabia** nov: ♂ Margherita, Assam: May 1889: W.

Doherty: type B.M. Flies at lower elevations than *fatua*. B.M. 4 ♂ 6 ♀ Sikkim. 3 ♂ 1 ♀ Bhutan. 21 ♂ 11 ♀ Assam (700 ft.). 13 ♂ 5 ♀ Burma (to Ataran). 2 ♂ Fukien. 3 ♂ 4 ♀ Kwang-Si. 8 ♂ 2 ♀ N. and W. Siam. 2 ♂ 5 ♀ Indo-China. 4 ♂ 3 ♀ Hainan.

(g). Smaller than *fabia*, ♂ F 15 mm.: cell spot upf more like *dan*, from which it differs, as does *fabia*, in being more variegated above. In some females the cell spot is reduced to an upper dot.

Sub-sp. **dhyana** Fruhstorfer 1909: ♂ S.E. Siam: type B.M. B.M. 44 ♂ 23 ♀ S. Burma (Karens to Mergui). 6 ♂ 3 ♀ S. and E. Siam. 16 ♂ 12 ♀ Malaya.

(h). Large, ♂ F 20 mm.: wings elongate. Upf spots large, as in *fabia*: 2 yellow (♀ white) discal spots and a sub-basal dot in space 1b. Unh spots large and sharply defined. Clasp as in *dea*, but the projecting spine is shorter. A very aberrant form.

Sub-sp. **decora** Evans 1939: ♂ Chekiang: type B.M. B.M. 5 ♂ 1 ♀ Chekiang.

(i). The next two sub-species show an unexpected return to the *fatih* type: the central spots are contiguous, but are deep yellow in ♂ and ♀ and the cilia are dark brown. ♂ F 17 mm. In Sumatra the central spots are contiguous, but not conjoined. Clasp as in *dan*.

Sub-sp. **sumatrana** Fruhstorfer 1910: ♂ Sumatra: type B.M. B.M. 31 ♂ 1 ♀ Sumatra.

(j). Similar, but the central spots are completely conjoined.

Sub-sp. **fulvescens** Elwes & Edwards 1897: ♂ Kina Balu: figured. Fig. Seitz.
B.M. 21 ♂ 21 ♀ Borneo.

(k). A reversion to the *dan* type: generally resembles *fabia*, but is very variable. Upf the spot on the costa over the cell spot is more forward. ♂ F 16–18 mm.

Sub-sp. **eacus** Latreille 1823: Java. Fig Seitz.
Synonyms. *dichroa* Plötz 1884: Java.
lombokiana Fruhstorfer 1909: ♂ Lombok: type B.M.
sumbawana Fruhstorfer 1909: ♀ Sumbawa: type B.M.
B.M. 22 ♂ 22 ♀ Java. 1 ♀ Banka. 7 ♂ Lombok. 6 ♂ Sumba. 3 ♂ 2 ♀ Sumbawa. 1 ♂ Adonara. 2 ♂ Flores. 5 ♂ 4 ♀ Celebes.

2a (1). Unh not dark brown with tawny spots. ♂ hind tibiae with a recumbent hair pencil. Uncus undivided and without the back shield.

2b (9a). H without hyaline spots. Uph and unh with more or less well-defined black spots.

2 (3a). Above with more or less developed ochreous shading or spotting. Unf always in space 1b with an ochreous discal spot, a similar spot beyond near termen and cilia white.

indrani. 4 sub-species, each with 2 seasonal forms.

(a). Darkest form, with smallest markings. Upf cell spot conspicuously narrowed at its upper end. ♂ F 18 mm.

Sub-sp. **tissa** Moore 1881: ♀ Ceylon: type B.M. figured. Fig Lep Ind.

Synonym. *lankae* Plötz 1885: Ceylon.

B.M. 15 ♂ 14 ♀ Ceylon.

(b). Upf cell spot not, or only slightly, narrowed at upper end: rectangular, higher than wide. Uph uniform dark brown in WSF, with tawny spots outside the dark spots. DSF paler and more ochreous, the tawny spots not apparent.

Sub-sp. **indra** Evans 1926: ♂ N. Kanara: type B.M. Fig Ind, pl. 773/1, 1b as *indrani.*

B.M. 20 ♂ 21 ♀ N. Kanara. 3 ♂ 1 ♀ Madras. 2 ♂ Nilgiris. 6 ♂ 1 ♀ C. India, Jabalpur. 2 ♂ Orissa.

(c). Upf cell spot oval or quadrate, as wide as high. WSF as WSF *indra.* DSF, and apparently only form in Sikkim, has uph bright tawny.

Sub-sp. **indrani** Moore 1865: ♂ Bengal. Fig Lep Ind, pl. 773/1a, 1c; Seitz.

B.M. 1 ♂ Kangra. 2 ♂ Kumaon. 1 ♂ Bhutan. 41 ♂ 3 ♀ Sikkim. 4 ♂ Assam.

(d). Uph of the WSF rather more ochreous. DSF very much brighter orange yellow and upf with the submarginal yellow spots complete and conspicuous: ♀ darker.

Sub-sp. **uposathra** Fruhstorfer 1911: ♂ Bernardmyo: type B.M. Fig Lep Ind, pl. 773/1d and 1e, as *indrani.*

Synonym. *atarana* Evans 1932: ♂ Ataran: type B.M.

B.M. 2 ♂ Manipur. 31 ♂ 4 ♀ Burma. 3 ♂ 2 ♀ Siam. 1 ♀ Japan. 1 ♂ Singapore? 1 ♀ Java?

3a (2). Without ochreous colouring or spots. Uph and unh black spots on a uniform brown or grey ground.

3b (7a). F hyaline spot in space 11, over the cell spot, does not extend over vein 12 towards costa.

3c (5a). Upf and unf no sub-basal spot in space 1b. Uph dark spots are placed mid end cell and termen. F and H termen even.

3 (4). Unf no conspicuous white spot in space 1b external to the discal series. Antennae plain. Uncus without any projection at back. ♂ F 18 mm.

agni. 2 sub-species.

(a). Upf central spots contiguous. Uph cilia white at apex.

Sub-sp. **agni** De Nicéville 1883: ♂ Sikkim: figured: type B.M. Fig Lep Ind.

B.M. 14 ♂ 4 ♀ Sikkim. 6 ♂ Assam. 10 ♂ 2 ♀ Burma to Tavoy. 1 ♀ Siam. 1 ♂ Hainan.

(b). Upf central spots more separated. Uph cilia brown at apex.

Sub-sp. **igna** Semper 1892: ♂ Luzon. Fig Seitz.

Synonym. *sadakoe* Sonan 1936: Formosa: figured.

B.M. 2 ♂ 1 ♀ Sumatra. 1 ♂ Java. 1 ♂ Borneo. (Malaya, Selangor Museum.)

4 (3). Unf conspicuous whitish spot external to the discal series in space 1b. Antennae whitish below club. Uncus with conspicuous wing at back. Otherwise as *igna*. ♂ F 18 mm.

agnioides Elwes & Edwards 1897: ♂ Naga Hills: type B.M.: figured. Fig Lep Ind; Seitz.

B.M. 2 ♂ Manipur. 2 ♂ Naga Hills. 1 ♂ Tilin Yaw, N. Burma. 1 ♀ Fukien.

5a (3c). Upf and unf with a sub-basal black spot in space 1b. F termen excavate in space 1b and H in spaces 4–5. Uph dark spots nearer end cell than termen.

5 (6). Above with conspicuous grey scaling. Smaller, ♂ F 16 mm. Uncus flat topped: clasp excavate in middle of inner face.

palawana Staudinger 1888: ♂ Palawan: figured. Fig De

Nicéville 1891 (Bombay N.H. Soc., pl. G/28) as ♂ *laxmi* (specimen in B.M.).
B.M. 1 ♂ Malacca. 2 ♀ Sumatra.

6 (5). Above without grey scaling. Larger, ♂ F 18 mm. Uncus ending in a narrow projection, as in *agni*: clasp with a projection in middle of inner face. Upf spots smaller and yellow in ♀.
***kehelatha** Hewitson 1878: ♂ Celebes: type B.M.
Synonyms. *atilia* Mabille 1888: Minahassa: figured (very badly).
semperi Elwes & Edwards 1897: ♂ Camiguin di Luzon.
B.M. 2 ♀ Mindanao. 4 ♂ 3 ♀ Celebes. 1 ♂ Sula Mangoli. 1 ♂ Sula Besi.

7a (3b). F hyaline spot in space 11, over the cell spot, extends across vein 12.
7 (8). Pale brown, without any grey scaling. Upf central spots completely confluent. Clasp broadly bifid. Large, ♂ F 23 mm.
buchananii De Nicéville 1889: ♀ Ruby Mines, N. Burma: figured. Fig Lep Ind.
B.M. 1 ♂ Karen Hills, Burma.

8 (7). Above with conspicuous grey scaling. Upf central spots more or less contiguous, but not confluent. Clasp narrowly bifid.
laxmi. 3 sub-species.
(a). Large, F 22 mm., produced at apex. Upf central spots large, contiguous. Uph area beyond dark discal spots immaculate light grey. Top of clasp longer, rounded.
Sub-sp. **landa** nov: ♂ Sebong, Manipur: April 1913: H. C. Tytler: type B.M.
B.M. 1 ♂ Manipur.
(b). Smaller, ♂ F 20 mm., not produced. Upf as *landa*. Uph grey outer area darker and blackened at apex.
Sub-sp. **laxmi** De Nicéville 1888: ♂ Karens: figured. Fig Lep Ind.
B.M. 2 ♂ 2 ♀ Karens, Burma. 1 ♂ N. Siam.

(c). Still smaller, ♂ F 18 mm.: darker. Upf central spots separated. Uph outer grey area darker and with obscure dark submarginal spots.
Sub-sp. **sobrina** Elwes & Edwards 1897: ♂ Sumatra: figured: type B.M. Fig Seitz.
B.M. 5 ♂ S. Burma (Ataran-Mergui). 1 ♂ Hainan. 1 ♂ Malaya. 1 ♂ Sumatra.

9a (2b). H with hyaline spots. ♂ F 18–22 mm.
9 (10a). Upf with 2 costal hyaline spots over the cell spot in spaces 10 and 11. Above and below brown, no grey scaling. Uph spot end cell large, quadrate: discal spots small, a spot mid space 1c present.
hoenei Evans 1939: ♂ Chekiang: type Bonn, cotype B.M.
B.M. 2 ♂ 1 ♀ Chekiang.

10a (9). Upf single costal spot over the cell spot in space 11.
10 (11a). Uph no hyaline spot mid space 1c: mostly grey-scaled and discal hyaline spots small, disconnected.
maeniata Oberthür 1896: ♂ Maenia, Thibet: figured: type B.M. Fig Seitz vol. I.
B.M. 20 ♂ 1 ♀ Maenia. 3 ♂ 2 ♀ Ta Tsien Lou. 19 ♂ Tsekou, Yunnan. 4 ♂ Tali, Yunnan. 6 ♂ Bahand, Yunnan.

11a (10). Uph with a hyaline spot mid space 1c: discal spots continuous.
11 (12). Uph discal hyaline spots separated from the cell spot. Palpi below grey.
vitrea Leech 1894: ♂ Ta Tsien Lou: type B.M.: figured. Fig Seitz vol. I.
B.M. 4 ♂ W. Szechwan (Ta Tsien Lou, Tchang Kou, Siao Lou, Tien Tsuen).

12 (11). Uph hyaline discal spots conjoined to the much enlarged cell spot, except for 2 small black spots at bases of spaces 4–5 and 6. Palpi below bright orange.
sheila Evans 1939: ♂ Chekiang: type Bonn; cotype B.M.
B.M. 2 ♂ Chekiang. 5 ♂ Fukien.

C.6. SARANGESA Moore 1881: type *dasahara* Moore: the type was specified by the author as *purendra* Moore, but this name was not published with a description until 1882: the sole species included was *albicilia* Moore, which is now considered to be a sub-species of *dasahara* Moore.

1 (2). Unh with small white spots. Cilia chequered. Uncus plain and tapered.

purendra. 4 sub-species.

(a). Small, ♂ F 11 mm. Dark, markings above obsolete or faint.

Sub-sp. **hopkinsi** Evans 1921: ♂ Madras: type B.M.

B.M. 12 ♂ 2 ♀ Madras.

(b). Small, ♂ F 11 mm. Greyer, upf spots very small, but conspicuous.

Sub-sp. **sati** De Nicéville 1891: ♂ Cutch: figured. Fig Lep Ind.

B.M. 39 ♂ 11 ♀ Cutch.

(c). Larger, ♂ F 15 mm. WSF–upf hyaline spots conspicuous, those in cell and space 2 larger than the others. Darker than typical *purendra* and unh spots sharply defined. DSF–smaller, ♂ F 13 mm.: dull, markings obsolescent and looks very like *dasahara*, but the cell spot upf crosses the cell.

Sub-sp. **pandra** nov: ♂ Karwar, N. Kanara: January: T. R. Bell: type B.M.

B.M. 1 ♀ Ceylon (?). 2 ♂ Nilgiris. 19 ♂ 19 ♀ N. Kanara. 3 ♂ 2 ♀ Bombay. 1 ♂ Poona. 1 ♀ Matheran. 3 ♂ 1 ♀ Mt. Abu. 5 ♂ Pachmarhi, Centr. Prov.

(d). Large, ♂ F 16 mm. Paler and duller than *pandra*: unh markings suffused: seems to be only one seasonal form.

Sub-sp. **purendra** Moore 1882: ♀ Kangra: type B.M. Fig Lep Ind, pl. 778/3a, 3b from a ♂ from Kumaon: fig 3=*dasahara adona* ♂.

B.M. 3 ♀ Kangra. 5 ♂ 2 ♀ Kulu. 15 ♂ 5 ♀ Simla Hills. 7 ♂ 2 ♀ Dun and Garhwal. 2 ♂ 2 ♀ Kumaon. 1 ♂ Khasi Hills ?

2 (1). Unh dark brown suffused with ochreous grey to white scales, leaving a number of dark spots. Cilia not chequered. Upf with 2 cell spots, separate or conjoined, never solid across cell. Uncus broad, flanked by pointed processes.

dasahara. 5 sub-species.

(a). Unh white, except for costa. Upf cell spots small, absent in DSF. Cilia H white. ♂ F 13–14 mm.

Sub-sp. **albicilia** Moore 1881: ♂ Ceylon: type B.M.: figured. Fig Lep Ind; Seitz.

Synonym. *sezendis* Plötz 1885: Ceylon. Copy of MS. fig in B.M.

B.M. 43 ♂ 11 ♀ Ceylon.

(b). Unh scaling ochreous grey. Upf cell spots small and separate. WSF (*hampsoni*) dark, with white cilia H. DSF (*davidsoni*) smaller, paler, cilia pale brown.

Sub-sp. **davidsoni** Swinhoe 1912: ♂ Mahableshwar: type B.M.: figured.

Synonym. *hampsoni* Swinhoe 1912: ♂ Nilgiris: type B.M.: figured.

B.M. 41 ♂ 21 ♀ S. India to Poona.

(c). Similar, but upf the cell spots are conjoined and outwardly concave. Cilia H white.

Sub-sp. **adona** nov: ♂ Pachmarhi: type B.M.: fig Lep Ind, pl. 778/3 as ♂ *purendra*.

B.M. 1 ♂ 3 ♀ Pachmarhi. 1 ♂ Mt. Abu. 1 ♂ 1 ♀ Ganjam.

(d). Generally larger, ♂ F 16 mm. Cilia H dusky. Cell spots upf small and separate. Some seasonal variation.

Sub-sp. **dasahara** Moore 1865: ♂ Bengal: type B.M. Fig Lep Ind.

Synonym. *philippus* Mabille 1883: "Brazil" (wrong label).

B.M. 8 ♂ 2 ♀ N.W. Himalayas. 1 ♂ Behar. 17 ♂ 12 ♀ Sikkim. 2 ♀ Bhutan. 18 ♂ 8 ♀ Assam. 32 ♂ 15 ♀ Burma to Mergui. 1 ♂ Indo-China. 14 ♂ 1 ♀ Yunnan (Langkawi Is., coll Corbet).

(e). ♂ F 13 mm. Darkest form. Cilia at apex and tornus, both F and H, white. Upf cell spots oblique and separate, as in *davidsoni* WSF, from which it differs in the cilia H not being white throughout.

Sub-sp. **sandra** nov: ♂ Middle Andaman Is.: June 1930: M. L. Ferrar.

B.M. 6 ♂ 1 ♀ Middle Andaman Is.

C.7. SATARUPA Moore 1865: type *gopala* Moore: fixed by Scudder 1875.

1a (5a). F cell spot absent or small, not larger than the spot in space 3, and with its centre directed to the dorsum well before the tornus.

1 (2a). Upf apical spots irregular, the spot in space 6 out of line with those in spaces 7 and 8. Small, ♂ 26 mm. Style of clasp broad.

valentini Oberthür 1921: ♂ Ta Tsien Lou: type B.M.: figured.

B.M. 16 ♂ Ta Tsien Lou area.

2a (1). Upf apical spots in spaces 6 to 8 equal and in line.

2 (3a). Upf spots in space 1b as wide as the spot in space 2 and wider than the spot in space 3. Style slender, straight.

zulla. 2 sub-species.

(a). Upf with a small upper cell spot. Aedeagus spined. ♂ F 34 mm.

Sub-sp. **zulla** Tytler 1915: ♂ Naga Hills: type B.M. Fig Tytler 1926.

B.M. 10 ♂ Sikkim. 4 ♂ Naga Hills.

(b). Upf without a cell spot. Aedeagus smooth. ♂ F 30 mm.

Sub-sp. **ouvrardi** Oberthür 1921: ♂ Tsekou: type B.M.: figured.

B.M. 4 ♂ N. Yunnan.

3a (2). Upf spots in space 1b narrower than the spots in spaces 2 and 3.

3 (4). Unh the black discal spots rounded and separated by white veins, which penetrate to the termen. Aedeagus smooth. ♂ F 25–28 mm. Some variation in the darkness of the border uph. Unh with a prominent inner spot in space 7.

gopala Moore 1865: ♂ Sikkim: type B.M.: figured. Fig Lep Ind: Seitz.

Synonyms. *tonkiniana* Fruhstorfer 1909: ♂ Tonkin: type B.M.

hainana Evans 1932: ♂ Hainan: type B.M.

malaya Evans 1932: ♂ Sumatra: type B.M.
B.M. 28 ♂ 2 ♀ Sikkim. 29 ♂ 3 ♀ Assam. 1 ♂ 1 ♀ Tonkin. 2 ♂ 3 ♀ Hainan. 1 ♂ Malaya. 1 ♂ Sumatra.

4 (3). Unh with the discal spots conjoined and the dark border undivided by white veins. Style of clasp curved forward. ♂ F 30 mm.

nymphalis. 2 sub-species.

(a). Uph central white band half the width of the outer dark border. Unh inner spot in space 7 conspicuous.

Sub-sp. **nymphalis** Speyer 1879: ♂ Amur. Fig Staudinger 1887; Seitz I.

Synonym. *sugitanii* Matsumura 1929: ♂ Korea: figured.
B.M. 1 ♂ Vladivostock. 1 ♂ Manchuria.

(b). Uph central white band as wide or wider than the dark border. Unh inner spot in space 7 often absent. Very variable.

Sub-sp. **khamensis** Alphéraky 1897: ♂ Kham: figured. Fig Oberthür 1921 as *nymphalis.*

Synonyms. *oberthueri* Evans 1932: ♂ Ta Tsien Lou: type B.M.
intermedia Evans 1932: ♂ Siao Lou: type B.M.
B.M. 75 ♂ 6 ♀ W. China and E. Thibet.

5a (1a). F cell spot larger than the spot in space 3 and its centre directed to the tornus.

5 (6a). Upf spot in space 2 nearer to the spot in space 3 than to the cell spot, as in the preceding species. Unh with an inner spot in space 7. Aedeagus bifid at end. ♂ F 32 mm.

splendens Tytler 1915: ♂ Naga Hills: type B.M. Fig Tytler 1926.
B.M. 1 ♂ 1 ♀ Naga Hills.

6a (5). Upf central spots approximate, spot in space 2 mid cell spot and spot in space 3.

6 (7). Unh with a conspicuous inner spot in space 7: discal spots large and completely conjoined. Upf in ♂ spots in space 1b often very small, as in *splendens*, which it also resembles in respect of the bifid aedeagus. ♂ F 33 mm.

monbeigi Oberthür 1921: ♂ Siao Lou: type B.M.: figured. B.M. 1 ♂ Mongolia. 1 ♂ Shanghai. 1 ♀ Kwei Chow. 1 ♂ Hunan. 4 ♂ 6 ♀ Hupeh. 4 ♂ 1 ♀ Kwan Shien. 33 ♂ 15 ♀ W. China (Ta Tsien Lou area).

7 (6). Unh without an inner spot in space 7: discal spots more rounded and separate. Aedeagus undivided. ♀ upf cell spot much larger than in any other species.

majasra Fruhstorfer 1909: ♂ Formosa. Fig Matsumura 1931 as *formosicola*.

Synonyms. *formosana* Matsumura 1910: homonym by Fruhstorfer 1909.

formosibia Strand 1926: ♂ Formosa.

formosicola Matsumura 1929: ♂ Formosa.

B.M. 8 ♂ 2 ♀ Formosa.

C.8. SESERIA Matsumura 1920: type *formosana* Fruhstorfer: fixed by author as *nigroguttatus* Matsumura, which is a synonym of *formosana*.

1a (4a). H lower end of row of dark discal spots curved up, so that the spot in space 2 is nearer to end cell than to termen.

1 (2a). Uph and unh plain brown, dark discal spots faint. Upf hyaline spots pale yellow. ♂ F 22 mm. Genitalia like *dohertyi*.

formosana Fruhstorfer 1909: ♂ Formosa: type B.M. Fig Matsumura 1931 as *nigroguttata*.

Synonym. *nigroguttata* Matsumura 1910: ♂ Formosa.

B.M. 18 ♂ Formosa.

2a (1). Uph with the usual white band.

2 (3). End of clasp broad, short. Unh inner spot in space 7 comparatively small and well clear of the dark costal and basal areas: upper end of discal row of spots straighter and outer spot in space 7 nearer to the spot in space 6 than to the inner spot in space 7. Uph white area unsullied.

dohertyi. 3 sub-species.

(a). Abdomen above white corresponding with the hindwing band, base and tip brown. Uph white area broader than in *sambara* and unh the discal spots are separated from the dark border, particularly in the DSF. Upf the spot in space 1b connected to the dorsum by a white area wider than the spot. ♂ F 20 mm.

Sub-sp. **dohertyi** Watson 1893: ♂ Kumaon: type B.M.
B.M. 6 ♂ 1 ♀ N.W. Himalayas (Murree to Kumaon). 5 ♂ 1 ♀ Sikkim. 3 ♂ Manipur and Naga Hills.
(b). Very large, ♂ F 24 mm. Abdomen brown. Markings broad, but the white connection of spot in space 1b to dorsum upf is narrower than the spot. The genitalia clasps are asymmetric showing a connection between *salex* and *dohertyi*.

Sub-sp. **scona** nov: ♂ Lou Tse Kiang, Yunnan: type B.M.
B.M. Only the type.
(c). ♂ F 22 mm. Abdomen above brown. Upf markings narrow, particularly the spot in space 1b, which is not connected to the dorsum by a white bar: in the type there is a small lower cell spot. H more like *sambara*, but unh the 2 spots in space 1c are well clear of the dark border.

Sub-sp. **salex** nov: ♂ Hainan: type B.M.
B.M. 2 ♂ Hainan.

3 (2). End of clasp long and narrow, entirely different in form from *dohertyi*, lower spine from base instead of centre of cuiller.

sambara. 2 sub-species.
(a). Abdomen centrally white, as in *dohertyi*, but in ♀ tends to be striped. In WSF the white area uph is somewhat sullied and narrower than in *dohertyi*. Upf the white spot in space 1b is narrower and outwardly excavate: the connecting white bar to the dorsum is obscure in the WSF. ♂ F 20 mm.

Sub-sp. **sambara** Moore 1865: : Sikkim: type B.M. Fig Lep Ind; Seitz.
Synonym. *cosima* Plötz 1884: ♂ N. India.
B.M. 2 ♂ Kumaon. 32 ♂ 3 ♀ Sikkim. 1 ♂ Bhutan. 17 ♂ 1 ♀ Assam. 6 ♂ Manipur and Naga Hills (flying with *dohertyi*).
(b). Similar to *sambara* WSF, but upf usually with an additional apical dot in space 8 and the spot in space 1b is very narrow and not connected to the dorsum. Very

like *salex*, but unh the dark spots in space 1c are completely covered by the dark border. ♂ F 20 mm. Lower spine of cuiller very much shorter than in *sambara*.

Sub-sp. **indosinica** Fruhstorfer 1909: ♂ Tonkin: type B.M.
B.M. 3 ♂ 1 ♀ Tonkin.

4a (1a). H dark spots on a much more even curve, the spot in space 2 is nearer to the termen than to the cell.
4 (5a). Abdomen above striped. Upf apical spots generally faint and the spot in space 5 mid termen and spot in space 4: spot in space 1b broad, but not continued to dorsum. ♂ F 22 mm. A connecting link between the *sambara* and *affinis* groups.

strigata Evans 1926: ♂ Ataran: type B.M. Fig Lep Ind as *kirmana*.
B.M. 2 ♂ 1 ♀ Karen Hills. 7 ♂ 1 ♀ Ataran.

5a (4). Abdomen above brown. Upf apical spots well marked and the spot in space 5 is nearer to the termen than to the spot in space 4: spot in space 1b not continued to dorsum.
5 (6). Cuiller of clasp on inner face produced centrally and apically: the central projection or spine midway between the tip of the apical projection and the style. Upf generally no spot in space 8 and spots in spaces 3 and 4 not elongate.

affinis. 4 sub-species.
(a). Small, ♂ F 20 mm. Upf marking in space 1b reduced to 2 dots, which may be conjoined to a narrow streak. Uph discal spots entirely submerged in the dark border.

Sub-sp. **kirmana** Plötz 1885: ♂ Malacca. Lep Ind fig is *strigata*.
Synonym. *cognata* Distant 1886: ♂ Perak: figured.
B.M. 1 ♂ Perak. 2 ♂ No loc.
(b). Large, ♂ F 22 mm. Upf complete spot in space 1b, usually broad. Uph dark discal spots partly free of the dark border.

Sub-sp. **affinis** Druce 1873: ♂ Borneo: type B.M.: figured.
Synonym. *niphates* Weymer 1887: ♂ Sumatra: figured.
B.M. 27 ♂ Sumatra. 26 ♂ Borneo.

(c). Small, ♂ F 20 mm. Upf markings reduced, dot in space 1b or unmarked. Uph white area not extending behind the spot in space 7. Unh dark border absent except narrowly at apex and tornus: termen conspicuously chequered.

Sub-sp. **niasica** Evans 1932: ♂ Nias: type B.M.

B.M. 4 ♂ Nias.

(d). ♂ F 22 mm. Upf spots large: uph white area very broad. Unh inner spot in space 7 small or absent, much nearer to base than to outer spot in space 7.

Sub-sp. **javanensis** Fruhstorfer 1909: ♂ Java: type B.M. Fig Rhop Java as *affinis*; fig in Seitz of *javanensis* is *affinis*.

B.M. 28 ♂ 2 ♀ Java. 1 ♂ Borneo (? wrong label).

6 (5). Cuiller of clasp on inner face produced at either end and not centrally: the lower spine just above the style as in *sambara*. Upf with a spot in space 8: spots in spaces 3 and 4 linear, oblique, the upper spot may be reduced to an inner dot: spot in space 1b linear, oblique. Unh spot base space 7 large. ♂ F 22 mm.

sesame nov: ♂ Sarawak, 1908: C. J. Brooks: type B.M.

B.M. 2 ♂ Borneo. 3 ♂ Sumatra.

C.9. PINTARA Evans 1932: type *pinwilli* Butler: fixed by author.

1 (2). Upf with sub-apical spots in spaces 4, 5 and 6 to 8. Unh discal black spots clear of the dark border. ♂ F 25 mm. F spots white.

tabrica. 3 sub-species.

(a). Upf central hyaline spots large, cell spot across cell. Uph and unh most of wing clear orange.

Sub-sp. **tabrica** Hewitson 1873: ♂ Darjiling (?): figured: type B.M. ♂ fig Lep Ind: fig Seitz ♂ as ♀ *tabrica*, fig of ♂ and underside are *pinwilli*.

B.M. 1 ♂ type, probably from Indo-China. 1 ♀ Laokai, Cochin-China.

(b). Upf as *tabrica*. Uph orange area patchily shaded brown and unh veins black.

Sub-sp. **melli** Hering 1918: ♂ Tsha Jiu San, S.E. China: figured.

B.M. None.

(c). Uph and unh as *melli*. Upf central spots small, widely separated, cell spot not reaching across cell.

Sub-sp. **bowringi** Joicey & Talbot 1921: ♂ Hainan: figured: type B.M.

B.M. 1 ♂ 2 ♀ Hainan.

2 (1). Upf no spots in spaces 4 to 8. Upf central spots large, pale yellow. Unh dark border much broader, more or less coalescent with the discal spots. ♂ F 25 mm.

pinwilli. 2 sub-species.

(a). ♂ upf discal spots well separated.

Sub-sp. **pinwilli** Butler 1877: ♂ Malacca: type B.M.: figured. Fig Distant 1886; Lep Ind; Seitz as *pinwilli* and as *tabrica* ♂ and underside.

B.M. 12 ♂ 5 ♀ Burma (Karens to Victoria Point). 1 ♂ Siam. 1 ♂ Malacca.

(b). ♂ ♀ upf central spots completely conjoined. ♂ uph orange area redder.

Sub-sp. **banga** nov: ♂ Tameang Lajang, S.E. Borneo: type B.M.

B.M. 2 ♂ Borneo. 1 ♀ Sumatra (Battak Mts.).

C.10. CHAMUNDA Evans (p. 14): type *chamunda* Moore: fixed by author.

Single species. Superficially resembles species belonging to the genera *Lobocla* and *Celaenorrhinus* in respect of the arrangement of the hyaline spots upf. Upf up to the central band and uph except for a narrow dark border, densely clothed with olive scales. Unh clothed with olive scales and unmarked except occasionally with a small pale spot in space 6 and more rarely one in the cell. ♂ F 24 mm.

chamunda Moore 1865: ♂ Darjiling: type B.M. Fig Lep Ind; Seitz.

B.M. 21 ♂ 18 ♀ Sikkim. 12 ♂ 11 ♀ Assam. 1 ♂ N. Shan St., Burma. 1 ♂ 1 ♀ S. Shan St. 3 ♂ 1 ♀ Karen Hills.

C.11. DAIMIO Murray 1875: type *tethys* Ménétriés: sole species included.
Synonyms. *Catodaulis* Speyer 1878: type *tethys* Ménétriés: sole species included.
Gerosis Mabille 1903: type *hamiltonii* De Nicéville: sole species included.

1 (2a). Palpi below white. Upf generally with a white spot mid costa over cell spot. ♂ recumbent tibial pencil on hind tibia shorter than tibia. ♀ with anal hair tuft. ♂ F 18–21 mm.

tethys. 4 sub-species.

(a). Clasp in first two sub-species with end hemispherical. Typical *tethys* has the uph unmarked: unh often with traces of a white central band. A not infrequent form (*lineata*) has, uph and unh, a broken incipient white band, more or less developed.

Sub-sp. **tethys** Ménétriés 1857: ♂ Japan: figured. Fig Pryer; Seitz I.
Synonyms. *lineata* Mabille & Boullet 1916: ♂ China.
daiseni Riley 1921: ♂ Mt. Daisen, Japan: type B.M.(= *lineata*).
yamashiroensis Kato 1930: ♂ Mt. Atago, Japan (=*lineata*).
B.M. 30 ♂ 24 ♀ (*tethys*), 1 ♀ (ab. *epitaras*, see *moori*), 19 ♀ 10 ♀ (*lineata*) Japan. 13 ♂ 2 ♀ Amur and 8 ♂ Manchuria (*tethys* grading to *lineata*). 1♀ Korea, 2 ♂ Snowy Valley (Hong Kong), 1 ♀ Shanghai, 1 ♂ "C. China" (typical *tethys*).

(b). Uph and unh with an unbroken central white band outwardly bordered by black spots. Uph the white band is generally bulged outward centrally, much constricted apically and does not usually reach the costa: the black spots are partially or completely submerged by the dark border.

Sub-sp. **moori** Mabille 1876: ♂ Mupin (♀ is *roona*). Fig Alphéraky 1895; Seitz I.
Synonyms. *felderi* Butler 1881: ♂ "Japan" (probably Ichang): type B.M.
chinensis Staudinger 1892: ♂ Mongolia.
epitaras Oberthür 1907: ♀ Ta Tsien Lou: figured: type B.M. Aberration.

formosana Matsumura 1919: ♂ Formosa. Homonym by Fruhstorfer 1909.
taiwana Matsumura 1919: ♂ Formosa: figured.
saishiuana Okamoto 1924: ♀ Quelpart Is.: single specimen flying with *thetys*.
B.M. 3 ♂ Mongolia. 2 ♂ "Snowy Mountain". 2 ♀ N. China. 1 ♂ Shantung. 1 ♂ 1 ♀ Shansi. 1 ♂ 2 ♀ S. Shensi. 1 ♂ 1 ♀ Hunan. 2 ♂ 1 ♀ Kiang Su. 4 ♂ 1 ♀ Chekiang. 4 ♂ Fukien. 15 ♂ 8 ♀ Hupeh. 3 ♂ 1 ♀ "Japan" (probably Hupeh). 5 ♂ 1 ♀ Formosa. 8 ♂ 7 ♀ (*moori*), 1 ♀ (*epitaras*) Ta Tsien Lou. 5 ♂ 3 ♀ Siao Lou. 1 ♂ 1 ♀ Leon Fang. 3 ♂ 3 ♀ Mupin. 2 ♀ Nan Chuan (S. Szechwan). 4 ♂ 1 ♀ Yen Chuan and Traku (W. Szechwan). 5 ♂ 6 ♀ Tien Tsuen. 2 ♂ Pa Tse Fang. 6 ♂ 1 ♀ O Mei Shan. 1 ♂ Fort Naryn. 1 ♂ 1 ♀ Ya-Tcheou.
(c). Uph white band usually of more even width, less constricted apically and reaching costa: black spots partially clear of dark border uph and entirely clear unh. Unh cilia brown at end of veins, white in interspaces: in *moori* the cilia are often narrowly white throughout, and at interspaces the white colouring penetrates on to the wing. In certain localities (first mentioned below) the two sub-species fly together.

Sub-sp. **roona** nov: ♂ Se-Pin-Lou-Chan, Ya-Tcheou: fig Oberthür 1912, pl. 137 fig 1208 as *tethys* var. ♂.
B.M. 2 ♀ Ta Tsien Lou. 1 ♂ 2 ♀ Siao Lou. 2 ♂ 1 ♀ Mupin. 1 ♂ O Mei Shan. 3 ♂ 1 ♀ Pa Tse Fang. 5 ♂ 2 ♀ Ya-Tcheou. 2 ♂ 1 ♀ Washan. 1 ♂ Ni Tou. 2 ♂ Kiao Chuy. 1 ♂ 1 ♀ Wa Ssu Kow. 1 ♀ Tay Tou Ho. 5 ♂ 3 ♀ Tchang Kou. 2 ♂ Chia Kou Ho. 2 ♂ 1 ♀ Chow Pin Sa. 6 ♂ 2 ♀ Tong Ho Valley. 1 ♂ 2 ♀ Ta Tong Kiao. 15 ♂ 1 ♀ Thibet (Foulin, Ta Ho, Qua Se, Moenia, Cha Pa). 5 ♂ 1 ♀ Yunnan (Tse Kou, Bahand).
(d). Differs from *roona* in being smaller and with broader markings: the spot in space 1b upf is quadrate instead of rectangular.

Sub-sp. **birmana** Evans 1926: ♂ N. Shan St.: type B.M.
B.M. 13 ♂ 5 ♀ Yunnan (Li-kiang, A Tun Tse, Manhao, Teng Yueh Ting). 5 ♂ 3 ♀ N. Burma (Htaw-gaw, Maymyo).

2a (1). Palpi below yellow. Upf no white spot mid costa. ♂ tibial hair pencil longer than tibia. ♀ no anal hairtuft.
2b (4a). Upf cell spot absent or small, smaller than the spot in space 3.
2 (3). Abdomen above white centrally, brown at ends. End of uncus bulbous. Uph white area unmarked and unsullied.

sinica. 3 sub-species.

(a). Large, ♂ F 21 mm. Uph white band narrow in ♂, about one-third of dark border, one-half in ♀. Upf cell spot comparatively large, often nearly as large as spot in space 3: spot in space 1b about = spot in space 2 and not overlapping in ♂, but in ♀ larger and overlapping. Unh conspicuous black spot in space 7 and, in ♂, narrow bar at end cell joined to the dark border.

Sub-sp. **sinica** Felder 1862: ♂ Ningpo.
Synonym. *diversa* Leech 1890: ♂ Chang Yang: type Fig. Leech 1894; Seitz I; figures of *diversa* in Lep Ind are *narada* WSF.
B.M. 2 ♂ 1 ♀ Kiang Su. 11 ♂ Hupeh. 8 ♂ 2 ♀ W. Szechwan (Ta Tsien Lou, Wa Ssu Kow).

(b). Smaller, ♂ F 17–19 mm. Two well-marked seasonal forms. WSF uph white band = dark border and upf spots in spaces 1b and 2 sub-equal. DSF uph white band twice as wide as dark border and upf spot in space 1b much enlarged. No spot at end cell uph.

Sub-sp. **narada** Moore 1884: ♂ Sikkim WSF: type B.M. Fig Lep Ind, DSF as *narada*, WSF as *diversa*: Seitz ♀ DSF as *phisara*, his *narada* is *bhagava*.
Synonym. *indica* Evans 1926: ♂ WSF Assam: type B.M.
B.M. 3 ♂ 2 ♀ WSF, 24 ♂ 3 ♀ DSF, Sikkim. 18 ♂ 13 ♀ WSF, 10 ♂ 1 ♀ DSF, Assam. 5 ♂ 1 ♀ DSF Ataran, Burma.

(c). Very small, ♂ F 16 mm. Like WSF *narada*. Upf spot in space 2 smaller and cell spot is mid spots in spaces 2 and 3, instead of over the centre of the cell spot. Uph no signs of dark spots on the border and cilia brown. Genitalia as *narada*.

Sub-sp. **minima** Swinhoe 1910: ♂ Labuan: type B.M.
B.M. 2 ♂ 1 ♀ Borneo. (Malaya, coll Cowan.)

3 (2). Abdomen above narrowly striped. End of uncus tapered to a point. Superficially sometimes difficult to separate from *narada*.

phisara. 3 sub-species.

(a). In China there appear to be 3 forms. WSF like a large *phisara* WSF, ♂ F 22 mm., and very like *sinica*: ♂ upf no spot in space 1b and uph band = $\frac{1}{3}$ of border, with a large black spot at end of cell: ♀ differs from *sinica* in having, like the ♂, unchequered cilia on hindwing. Intermediate form exactly like *narada* WSF, but in ♂ upf the spot in space 1b overlaps the spot in space 2 and the cilia unh are unchequered. DSF (typical *rex*) like *narada* DSF but upf, ♂ and ♀, the spot in spaces 2 and 3 overlap: ♂ F 18 mm.

Sub-sp. **rex** nov: ♂ Tse Kou, Thibet: R. P. Dubernard: type B.M.

B.M. WSF 1 ♂ Hupeh. 3 ♂ Kiang Si. 1 ♂ Kwang Tung. 2 ♂ 1 ♀ W. Szechwan (Siao Lou, Ta Tsien Lou). Int. F 1 ♂ Ta Tsien Lou. 2 ♂ Tse Kou, Yunnan. DSF 1 ♀ Fukien. 2 ♂ Yunnan (Bahand, Tse Kou).

(b). *phisara* also has 3 forms. WSF ♂ uph band yellowish, very narrow, like *rex* WSF but smaller, ♂ F 19 mm.: ♀ like ♀ *narada* WSF, but the spot in space 1b upf is usually completely overlapped by the spot in space 2. DSF upf as WSF: uph ♂ band pale yellowish, nearly as broad as the dark border, whereon the grey post-discal line and grey veins therefrom to the white area are conspicuous, as also is the spot end cell: uph ♀ band broader than the dark border. Intermediate form (more frequent in Burma and Assam) in ♂ uph has the band whiter and broader than the WSF and the dark border more uniform: it grades to the WSF of which it is a minor variation. In addition there is a rare aberration (*hamiltonii*) which in its extreme form has the white markings on both wings completely absent and the uph grey scaled: no two of the known specimens are quite alike.

Sub-sp. **phisara** Moore 1884: ♂ WSF Khasi Hills: type B.M. Fig Lep Ind, WSF as *phisara*, DSF as *bhagava*: Seitz fig of *phisara* is DSF *narada*.

Synonym. *hamiltonii* De Nicéville 1888: ♂ Sylhet:

figured. The figure reproduced in Lep Ind and Seitz. Aberration.
kuki Tytler 1915: ♂ Lushai Hills: type B.M. Aberration.
expansa Mabille & Boullet 1916: ♂ British India, DSF.
B.M. 1 ♂ DSF Kumaon. 15 ♂ 2 ♀ WSF, 22 ♂ 3 ♀ DSF, 1 ♂ Ab (genotype of *Gerosis*) Sikkim. 24 ♂ 4 ♀ WSF and Int F, 18 ♂ 4 ♀ DSF, 1 ♂ Ab, Assam. 1 ♂ WSF, 1 ♂ DSF, 13 ♂ 13 ♀ Int F, 1 ♂ 1 ♀ Ab, Burma, to Tavoy. 1 ♂ WSF, 2 ♂ 1 ♀ DSF Siam.
(c). Dark form of DSF *phisara*: ♂ uph band obsolete. ♂ F 20 mm.
Sub-sp. **tenebrosa** Joicey & Talbot 1921: ♂ Hainan: type B.M.
B.M. 4 ♂ 1 ♀ Hainan.

4a (2b). Upf cell spot large, as large or larger than the spot in space 3. End of uncus bulbous.
4 (5a). Upf spot in space 3 small and adjoining the spots in space 2 and cell. Uph band reaching costa and dorsum, and bearing black spots in space 7 and usually at end cell: band pale yellow in ♂, white in ♀. Abdomen yellow (♀ white) with end narrowly ringed. ♂ F 19 mm.
bhagava. 2 sub-species.
(a). ♂ upf always with a pale spot in space 1b. WSF band uph narrower than the dark border in ♂: ground colour dark brown. DSF uph band paler and broader than the border: ground colour much paler and veins more or less grey thereon.
Sub-sp. **bhagava** Moore 1865: ♂ N.E. Bengal, WSF: type B.M. WSF fig Seitz as *narada*; DSF Lep Ind as *milliana*, the figures of *bhagava* are *phisara* DSF.
Synonym. *milliana* Swinhoe 1912: ♂ Burma: type B.M.
B.M. 4 ♂ S. India. 1 ♂ 1 ♀ C. India (Pachmarhi). 1 ♂ N. India (type). 2 ♂ Nepal. 1 ♂ Manipur. 37 ♂ 22 ♀ Burma to Tavoy. 6 ♂ Siam.
(b). Like WSF *bhagava*, but upf central spots much smaller.
Sub-sp. **andamanica** Wood Mason & De Nicéville 1881: ♂ Andamans: figured. Fig Lep Ind and Seitz.
B.M. 12 ♂ 7 ♀ Andamans.

5a (4). Upf spot in space 3 generally as large as the cell spot and well separated from the spots in space 2 and the cell.

5b (7). Unf with a conspicuous double white spot in space 1b midway between the discal spot and the termen. ♂ F 18 mm.

5 (6). Upf cell spot oblique, over the outer edge of the spot in space 2. Uph pale area white in ♂ and ♀. Abdomen striped.

limax. 4 sub-species.

(a). ♂ uph white area oval, occupying a quarter or less of wing: in ♀ not wider than the dark border.

Sub-sp. **dirae** De Nicéville 1895: ♂ Pulo Laut: figured. Fig in Seitz.

Synonym. *graya* (Staudinger MS) Elwes & Edwards 1897 =*dirae.*

B.M. 11 ♂ 5 ♀ S. Burma (Tavoy to Mergui). 1 ♀ Siam. 1 ♀ Malaya. 12 ♂ 5 ♀ Sumatra. 14 ♂ 7 ♀ Borneo.

(b). ♂ uph white area obsolete. ♀ unh post-discal spots unusually large. Smaller. ♂ F 17 mm.

Sub-sp. **fumosa** Elwes & Edwards 1897: ♂ "Sumatra" (recte Nias): type B.M.: figured. Fig in Seitz.

B.M. 8 ♂ 3 ♀ Nias.

(c). Uph white area wider, post-discal grey line regular and conspicuous, also veins thereto from the white area are conspicuously grey.

Sub-sp. **limax** Plötz 1884: ♂ ? loc. (Java). Fig Rhop Java.

Synonym. *visana* Fruhstorfer 1910: ♂ Java: type B.M. Fig Seitz.

B.M. 26 ♂ 11 ♀ Java.

(d). ♂ uph white area as in *limax*, but reaches dorsum and vein 7. Larger. ♂ F 20 mm.

Sub-sp. **philippina** Evans 1932: ♂ Palawan: type B.M.

B.M. 2 ♂ Palawan.

6 (5). Upf cell spot large, directly over the spot in space 2. ♂ uph central area yellow, oval: in ♀ white: post-discal spots large, no trace of grey veins. Abdomen brown in ♂, white in ♀.

corona Semper 1892: ♂ Mindoro. Fig Seitz.

B.M. 2 ♂ 1 ♀ Luzon. 1 ♂ Mindoro. 3 ♂ 2 ♀ Mindanao.

7 (5b). Unh no spot in space 1b exterior to the discal spot. Upf cell spot large, placed over spot in space 2. Uph central pale area yellow in ♂, white in ♀: post-discal grey line and veins as in *limax*. ♀ abdomen white with end brown.

celebica. 2 sub-species.

(a). Large, ♂ F 22 mm. ♂ uph yellow area sullied. ♀ upf usually a discal spot in space 1b. ♂ abdomen striped.

Sub-sp. **celebica** Felder 1867: ♂ N. Celebes: figured: type B.M. Fig Seitz.

Synonyms. *permena* Hewitson 1868: ♂ Macassar: type B.M.

nivescens Fruhstorfer 1909: ♀ Bonthain: type B.M.

B.M. 37 ♂ 25 ♀ Celebes.

(b). Smaller, ♂ F 20 mm. and darker. ♂ uph yellow area clear and broader. ♀ upf no discal spots in space 1b and uph post-discal grey lines and veins very faint. ♂ abdomen basally yellowish.

Sub-sp. **sulina** Evans 1932: ♂ Sula Besi: type B.M.

B.M. 4 ♂ 4 ♀ Sula Is.

C.12. TAGIADES Hübner 1819: type *japetus* Stoll: fixed by Butler 1870.

Synonym. *Pterygospidea* Wallengren 1857: type *flesus* Fabricius: fixed by Scudder 1875.

1a (5a). F no hyaline spot in space 11 over cell spot. H tibiae without a hair pencil in ♂. End uncus bilobate. Antennal club nudum 18.

Japetus Group

1 (2a). Upf with 2 hyaline discal spots in spaces 2 and 3.

japetus. 24 sub-species.

(a). Uph cilia white from tornus to vein 6, surmounted by a narrow white area, whereon are 2 or 3 submarginal black dots, and followed by bluish white shading to mid wing. Upf without cell spots and discal spots in ♂ minute. Unh white except for dark costa. ♂ F 22 mm.

Sub-sp. **obscurus** Mabille 1876: ♂ "Malay Archipelago?, Java" (recte Ceylon). Fig Seitz, pl. 164f ♂: as *distans* in Lep Ceylon and Lep Ind: fig of *obscurus* in Lep Ind, pl. 768/3 is of *gana silvia.*

Synonym. *distans* Moore 1881: ♀ Ceylon: type B.M.: figured.

B.M. 18 ♂ 19 ♀ Ceylon. 10 ♂ 3 ♀ S. India (Nilgiris).

(b). Uph cilia brown (*atticus* section b–h). Unh bluish white: with 2 well-marked seasonal forms. DSF pale brown, wings pointed, large, ♂ F 23 mm.: unh black spots small or absent. WSF darker, wings more rounded, smaller, ♂ F 20 mm.: unh black spots large, white colouring more suffused. ♂ upf discal spots small in ♂, much larger in ♀.

Sub-sp. **ravi** Moore 1865: ♂ Bengal, WSF: type ♂ lost (♀ B.M.). Fig Lep Ind, pl. 767/1–1c DSF, 1d–1g WSF as *atticus*; also pl. 768/2a, ♀ WSF, as *meetana*; Seitz.

Synonyms. *khasiana* Moore 1884: ♂ DSF, Khasi Hills: type B.M.

lugens Mabille 1888: ♂ WSF, Saigon: type B.M.

epicharmus Fruhstorfer 1910: ♀ DSF Siam: type B.M.

B.M. 1 ♂ Orissa. 1 ♂ Dehra Dun. 3 ♂ 3 ♀ Calcutta. 1 ♂ 2 ♀ Sikkim Terai. 28 ♂ 28 ♀ Assam. 30 ♂ 30 ♀ Burma (to Ataran). 9 ♂ 9 ♀ Siam. 4 ♂ 4 ♀ Indo-China.

(c). Unh WSF rather pale brown without any bluish white suffusion. DSF like DSF *ravi*, but smaller, ♂ F 21 mm. ♂ WSF 19 mm.

Sub-sp. **atticus** Fabricius 1793: "India" (recte Pen Siam or Malaya): type Copenhagen Mus. (see Aurivillius 1897 and Corbet 1941): "hyalinae" in original description presumed to be a lapsus calami for "fuscae" for uph. Fig Distant ♂ DSF as *ravi*; Swinhoe 1908 and Seitz WSF as *utanus*.

Synonyms. *utanus* Plötz 1885: ♂ WSF Malacca.

yotissa Fruhstorfer 1910: ♂ WSF Nias: type B.M. Fig Seitz.

rajaghra Fruhstorfer 1910: ♂ WSF Sumatra: type B.M.

B.M. 15 ♂ 7 ♀ S. Burma (Tavoy to Victoria Point: ♂ Mergui = *ravi*). 9 ♂ 4 ♀ Pen Siam. 4 ♂ 5 ♀ DSF, 16 ♂ 1 ♀ WSF, Malaya (1 ♂ *balana* and 1 ♂ *helferi*). 1 ♀ WSF Lingga Is. 13 ♂ 8 ♀ WSF Sumatra. 1 ♂ WSF Sipora. 1 ♀ WSF Banka. 2 ♂ 1 ♀ WSF Batoe Is. 8 ♂ 8 ♀ WSF Nias.

(d). Prevailing form like a large *atticus* above: ♂ F 22 mm: unh, except for costa, smooth bluish white with dark spots as in *atticus*. Normal *atticus* also occurs infrequently.

Sub-sp. **balana** Fruhstorfer 1910: ♂ Borneo: type B.M.
B.M. 36 ♂ 24 ♀ Borneo.

(e). Larger, ♂ F 22 mm., darker and much more strongly marked form of *ravi*.

Sub-sp. **ravina** Fruhstorfer 1910: ♂ Andamans: based on Elwes & Edwards description.
B.M. 16 ♂ 12 ♀ Andamans.

(f). ♂ like *utanus*, ♀ like *balana*. Upf discal hyaline spots larger.

Sub-sp. **carnica** Evans 1934: ♂ Car Nicobar: type B.M.
B.M. 7 ♂ 7 ♀ Car Nicobar.

(g). Smaller, ♂ F 20 mm. ♂ ♀ unh clear white.

Sub-sp. **nankowra** Evans 1934: ♂ Nankowri: type B.M.
Fig Lep Ind, pl. 762/2 ♂ as *helferi*.
B.M. 20 ♂ 6 ♀ Central Nicobars.

(h). ♂ darker, larger, F 23 mm., wings produced. Unh white area duskier and less extensive. ♀ as *nankowra*. F hyaline spots conspicuous.

Sub-sp. **helferi** Felder 1862: ♂ Pulo Milo.
Synonym. *noctis* (Staudinger MS) Elwes & Edwards 1897 = *helferi*.
B.M. 1 ♀ Pulo Milo. 4 ♂ Kondul. 1 ♂ 1 ♀ Little Nicobar. 5 ♂ 2 ♀ S. Nicobar.

(i). H cilia white (*japetus* section: remainder, except for last sub-species, *kazana*). Uph without any white, but tornal half of termen broadly bluish. Upf discal hyaline spots small. ♂ F 23 mm.

Sub-sp. **enganicus** Fruhstorfer 1910: ♂ Engano: type B.M.
Fig. Seitz, pl. 164f as *brasidas*; Rhop Java as *japetus*.
Synonyms. *nepos* Latreille 1823: Java: homonym by Fabricius 1793.
jetavana Fruhstorfer 1910: ♂ "Sumatra": type B.M. ? wrong label.
guineensis Mabille & Boullet 1916: ♂ "New Guinea". ? wrong label.
B.M. 1 ♂ "Sumatra". 18 ♂ 18 ♀ Java. 9 ♂ 6 ♀ Bali. 8 ♂ 7 ♀ Bawean. 6 ♂ 5 ♀ Engano.

(j). Similar, but upf discal spots much enlarged. Unh with a continuous dark border instead of separated spots. ♂ F 23 mm.

Sub-sp. **titus** Plötz 1884: ♂ Philippines. Fig Seitz ♂.
Synonym. *latreillei* Staudinger 1889: ♂ Palawan. Fig Seitz ♀.
B.M. 6 ♂ 4 ♀ Palawan. 1 ♂ W. Sumar. 1 ♀ Guimaras. 1 ♂ Siassi. 6 ♂ 6 ♀ Luzon. 21 ♂ 15 ♀ Mindanao. 4 ♂ 2 ♀ Pollillo. 1 ♂ 2 ♀ Bazilan. 1 ♂ Bongao. 6 ♂ 1 ♀ Panay. 6 ♂ 6 ♀ Mindoro. 1 ♂ Sulu Archip. 11 ♂ 8 ♀ Philippines.

(k). Uph in remainder (except *kazana*) with the tornal half of the termen more or less white. Forms from the Celebes area (k–m) have the unh more or less darkened and the dark discal spots more developed. Celebes specimens are large, ♂ F 24–25 mm.: white tornal area uph narrow but conspicuous.

Sub-sp. **prasnaja** Fruhstorfer 1910: ♂ Celebes: type B.M.
B.M. 28 ♂ 27 ♀ Celebes. 1 ♂ Saleyer.

(l). As large, but much darker unh: uph most of white tornal area suffused bluish.

Sub-sp. **obscurata** Staudinger 1889: ♂ Sangir.
B.M. 15 ♂ 8 ♀ Sangir.

(m). A small edition of *prasnaja*, ♂ F 23 mm.

Sub-sp. **navus** Fruhstorfer 1910: ♂ Sula Mangoli: type B.M.
B.M. 14 ♂ 7 ♀ Sula Is.

(n). In the welter of islands from Lombok to Kei (n–r), the uph has a narrow white tornal area, often with 2 submarginal black dots at ends of veins 2 and 3: unh white below the radius and vein 6, bearing 3 submarginal black spots at ends of veins 2, 3 and 4, a double spot mid spaces 4–5 and a large round discal spot in space 6. From Lombok to Alor the specimens are large, ♂ F 23 mm., and there is considerable seasonal and individual variation, affecting the depth of the brown colouring and the intensity of the black spotting.

Sub-sp. **brasidas** Doherty 1890: ♂ Sumba: type B.M.
Synonyms. *esvara* Fruhstorfer 1910: ♂ Lombok: type B.M.
sumbae van Eecke 1933: ♂ Sumba.
B.M. 19 ♂ 11 ♀ Lombok. 10 ♂ 10 ♀ Sumba. 7 ♂ 6 ♀

Sumbawa. 3 ♂ 2 ♀ Flores. 1 ♂ 1 ♀ Pura. 1 ♂ Adonara. 1 ♂ Oinainisa. 7 ♂ 3 ♀ Alor.

(o). From Timor to Kei the specimens are smaller, ♂ F 20 mm., and the white area uph is generally wider and more often spotless. In Timor the black spots unh are well developed.

Sub-sp. **xarea** Mabille 1891: ♂ Timor.

Synonym. *mangala* Fruhstorfer: ♀ Babber: type B.M.

B.M. 5 ♂ 5 ♀ Timor. 3 ♂ 1 ♀ Roma. 2 ♂ Dammer. 3 ♂ 1 ♀ Kisser. 1 ♂ Kissoei. 1 ♂ Savu. 2 ♂ Kalao (intermediate to *prasnaja*). 1 ♂ 1 ♀ Wetter. 1 ♀ Babber. 5 ♂ Koer. 3 ♀ Taam. 1 ♂ Teandor. 1 ♀ Djampea. 1 ♀ Teoor. 1 ♀ Semao. 6 ♂ 1 ♀ Letti. 1 ♂ Sermatta. 1 ♂ Manovolka.

(p). Tenimber specimens are darker above and unh the black spots are reduced to dots, that in space 4 being missing.

Sub-sp. **tenimberanus** Kalis 1933: ♂ Tenimber.

Synonym. *yamdena* Evans 1934: ♂ Tenimber: type B.M.

B.M. 20 ♂ 29 ♀ Tenimber.

(q). Across the Banda sea a considerably modified form prevails on the Banda Is. Upf spots enlarged as in *titus*: uph white area square ended, instead of tapered at vein 4.

Sub-sp. **bandanus** Fruhstorfer 1910: ♂ Great Banda Is.: type B.M.

B.M. 5 ♂ 7 ♀ Banda Is.

(r). On Kei there seem to be two intergrading forms: at one end inseparable from *xarea*: at the other a smaller, darker form with more rounded wings and a narrower white area uph.

Sub-sp. **avienus** Fruhstorfer 1910: ♂ Kei Is.: type B.M. Fig Seitz.

B.M. 26 ♂ 22 ♀ Kei Is.

(s). Moluccan specimens generally resemble those from the Celebes and the Banda sea on the upperside. Unh the white area is not sullied, but the apical dark area extends further down the termen, engulfing the dark spot at end of vein 4. ♂ F 23 mm. There is a considerable amount of variation, which appears to be of an individual and not sub-specific nature.

Sub-sp. **japetus** Stoll 1782: ♂ Amboina: figured. Fig Seitz.
Synonyms. *buruanus* Fruhstorfer 1910: ♀ Buru: type B.M.
eprius Fruhstorfer 1910: ♂ Obi: type B.M.
masistius Fruhstorfer 1910: ♂ Halmaheira: type B.M.
deinolochus Fruhstorfer 1910: ♂ ? Ternate: type B.M.
B.M. 14 ♂ 11 ♀ Obi. 11 ♂ 14 ♀ Batchian. 13 ♂ 2 ♀ Halmaheira. 4 ♂ 4 ♀ Ternate. 14 ♂ 13 ♀ Amboina. 18 ♂ 11 ♀ Ceram. 12 ♂ 12 ♀ Buru. 4 ♂ Gisser. 2 ♂ 1 ♀ Goram.
(t). The primary differentiating feature for specimens from New Guinea, the Bismarcks and Solomons is the enlargement of the black spot at end of vein 2 unh. In the New Guinea area and the Bismarcks there appears to be a single sub-species varying between four extremes, viz.:

(1) *janetta* (Seitz, pl. 165a as *louisa*). Uph white area spotless and wide, equal to half the length of the wing at mid termen. The only form on Rossell, Sudest and Woodlark, and in N. Queensland. Frequent on Kei, Aru, Misol and St. Aignan. Occasional in British New Guinea and on Goodenough.

(2) *kowaia* (Seitz, pl. 164g). Uph white area extensive and marked with more or less conspicuous black spots. Frequent on Kei, Aru, Misol, Waigou, New Guinea, St. Aignan, Goodenough, Fergussons.

(3) *clericus* (Seitz, pl. 164g as *tindali*). As *kowaia*, but the white area uph restricted to $\frac{1}{3}$ or $\frac{1}{4}$ of the wing and the spots thereon may be much enlarged. Frequent throughout: the only form on Mefor and prevalent in the Bismarcks.

(4) *bubasa*. As *clericus*, but the white area uph spotless. Occasional in New Guinea: frequent in the Bismarcks: prevalent in the Schouten Is. For all ♂ F 21–23 mm.

Sub-sp. **janetta** Butler 1870: ♂ Aru: type B.M.
Synonyms. *clericus* Butler 1882: ♂ Duke of York Is.: type B.M.
kowaia Plötz 1885: ♂ New Guinea. Fig Swinhoe 1908.
gamelia Miskin 1889: ♂ Cape York: = *janetta*. Fig Waterhouse 1932.
tindalii Ribbe 1889: ♂ New Pomerania: = *clericus*.

australiensis Mabille 1891: ♂ Cape York: = *janetta.*
bubasa Swinhoe 1904: ♂ Humboldt Bay: type B.M.
louisa Swinhoe 1907: ♀ Rossel: type B.M. Fig Swinhoe 1908: = *janetta.*
fergussonius Fruhstorfer 1910: ♀ Fergussons: type B.M.: = *clericus.*
vulcania Evans 1934: ♂ Vulcan Is.: type B.M.: =*clericus.*
B.M. 1 ♂ Sula. 1 ♂ Yamma. 2 ♂ Goram. 3 ♂ 1 ♀ Amboina ("Strays or wrong labels"). 2 ♂ 1 ♀ Kei. 17 ♂ 17 ♀ Aru. 1 ♂ Salwatty. 13 ♂ 3 ♀ Misol. 7 ♂ 3 ♀ Waigou. 2 ♂ 2 ♀ Jobi. 2 ♀ Egum. 5 ♂ Roon Is. 93 ♂ 46 ♀ New Guinea. 1 ♂ Yule Is. 1 ♂ 1 ♀ Mioswar. 16 ♂ 16 ♀ Mefor. 13 ♂ 3 ♀ Schouten Is. 1 ♂ Simbang. 11 ♂ 4 ♀ St. Aignan. 3 ♂ 2 ♀ Woodlark. 10 ♂ 3 ♀ Sudest. 11 ♂ 9 ♀ Rossel. 7 ♂ 3 ♀ N. Queensland. 11 ♂ 4 ♀ Fergussons. 6 ♂ 1 ♀ Goodenough. 3 ♂ 3 ♀ Dampier. 3 ♂ 2 ♀ Vulcan. 6 ♂ 1 ♀ Trobriands. 5 ♂ 1 ♀ Rook Is. 15 ♂ 9 ♀ New Britain. 9 ♂ 7 ♀ New Hanover. 12 ♂ 5 ♀ New Ireland. 2 ♂ 2 ♀ Duke of York Is.

(u). A *bubasa* form, but unh dark markings vestigial. ♂ F 20 mm.

Sub-sp. **mathias** Evans 1934: ♂ St. Mathias: type B.M.
B.M. 5 ♂ 5 ♀ St. Mathias. 2 ♂ 3 ♀ Squally Is.

(v). Also a *bubasa* form. Large, ♂ F 24 mm., wing produced. Upf spots rather larger than usual. Uph white area narrow, 4 mm. Unh black spots nearly as vestigial as in *mathias.*

Sub-sp. **inconspicua** Rothschild 1915: ♂ Admiralty Is.: type B.M.
B.M. 2 ♂ Admiralty Is.

(w). In the typical form from the Solomons the dark submarginal markings unh are very pronounced, triangular, conjoined at their bases and their apices prolonged along the veins. Upf the hyaline spots are larger than in *janetta* and uph the white tornal area is narrow, more or less suffused bluish and bearing 2 dark spots, very much as in *prasnaja.* There is a good deal of variation, seemingly individual rather than sub-specific: occasional specimens are like *bubasa* or *clericus.* Larger than *janetta,* ♂ F averaging 23 mm.

Sub-sp. **hovia** Swinhoe 1904: ♂ Alu, Shortland Is.: type B.M.

B.M. 12 ♂ 6 ♀ Guadalcanar. 9 ♂ 2 ♀ Vella Lavella. 10 ♂ 2 ♀ Bougainville. 5 ♂ 5 ♀ Niasan. 10 ♂ 5 ♀ Shortlands. 1 ♂ Savo. 1 ♀ Fauro. 1 ♂ 1 ♀ San Christoval. 1 ♂ 2 ♀ Kolumbunga. 2 ♂ 1 ♀ Ugi. 1 ♀ Tugela. 4 ♂ 1 ♀ Malaita. 4 ♂ 2 ♀ New Georgia. 1 ♂ 3 ♀ Gila. 16 ♂ 4 ♀ Florida. 4 ♂ 2 ♀ Ysabel. 1 ♂ Choiseul. 1 ♂ 1 ♀ Guizo. 1 ♂ Ranonga. 4 ♂ 4 ♀ Rendova.

(x). The last sub-species provides perhaps the most remarkable variation of *japetus*. Above and below entirely brown, resembling *atticus* from Malaya, but the hyaline spots upf are larger and the unh is darker, with the dark discal spots very faint. ♂ F 23 mm.

Sub-sp. **kazana** Evans 1934: ♂ Treasury Is.: type B.M.

B.M. 5 ♂ 3 ♀ Treasury Is.

2a (1). Upf with no trace of hyaline spots in cell or spaces 2 and 3.

2b (4). Unh always with dark submarginal markings.

2 (3). Uph white area, if present, with at most 2 submarginal black spots (except in Philippines): dark spot in space 6 placed rather nearer origin of vein 7 than termen. ♂ F 19–22 mm.

gana. 10 sub-species.

(a). In India, Burma and China (a–e) the white tornal area uph is narrow, suffused bluish and without conspicuous spots. In S. India there are two comparatively well-marked intergrading seasonal forms. DSF has the white tornal area uph narrow, unsullied and the cilia are white. WSF has the white area narrower, more or less sullied and the cilia often brown.

Sub-sp. **silvia** Evans 1934: ♂ N. Kanara: type B.M. Fig Lep Ind, pl. 768/3 as *obscurus*.

B.M. 26 ♂ 26 ♀ S. India (Travancore to W. Ghats and Chota Nagpore).

(b). Like *silvia* DSF, but the white area broader.

Sub-sp. **athos** Plötz 1884: ♂ Calcutta.

B.M. 1 ♂ Orissa. 2 ♂ Nepal. 3 ♂ 1 ♀ Sikkim. 16 ♂ 11 ♀ Assam. 1 ♂ Siam.

(c). Like *silvia* WSF, but the white area narrower and the cilia nearly always brown.

Sub-sp. **meetana** Moore 1878: ♂ Meetan: type B.M. figured. Fig Lep Ind, ♂ only, ♀ is *japetus ravi.*

Synonym. *patimoka* Fruhstorfer 1910: ♂ Tonkin: type B.M.

B.M. 24 ♂ 22 ♀ Burma (Pegu Yoma and Karens to Mergui). 12 ♂ 3 ♀ Siam. 2 ♂ coll. Mabille, no loc., marked *obscurus* but not agreeing with his description.

(d). An enlarged edition of *athos*: ♂ F 23 mm.

Sub-sp. **sangarava** Fruhstorfer 1910: ♂ Tonkin: type B.M.

B.M. 3 ♂ 4 ♀ Tonkin. 20 ♂ 7 ♀ Hainan. 1 ♂ Kwang-Si.

(e). A dark ~~form of~~ *athos*. Unh submarginal dark markings much intensified.

Sub-sp. **alica** Moore 1877: ♂ S. Andamans: type B.M.: figured. Fig Lep Ind.

B.M. 22 ♂ 16 ♀ Andamans. 1 ♂ 1 ♀ Centr. Nicobars.

(f). Malaysian specimens have a clear white tornal white area uph, whereon are 2 conspicuous black spots. There seem to be two more or less well-marked forms of the ♂. Large, ♂ F 23 mm., with the tornal white area uph 5 mm. wide. Small, ♂ F 19 mm., with more rounded wings and the white area 3 to 4 mm.

Sub-sp. **gana** Moore 1865: ♂ "Bengal" (recte Java): type B.M. Fig Seitz, pl. 164h as *gana* and 165d ♀ as "*melantho*". Fig Distant as *gana.* Fig Rhop Java, pl. 5/10 as *menanto*: fig of "*gana*" is *parra.*

Synonyms. *menanto* Plötz 1885: ♂ Malacca.
avala Fruhstorfer 1910: ♂ W. Java: type B.M.
paceka Fruhstorfer 1910: ♀ Palawan: type B.M. Fig in Seitz is *karea.*
mahinda Fruhstorfer 1910: ♂ Kina Balu: type B.M.
perakana Fruhstorfer 1910: ♂ Perak: type B.M.
javanus Kalis 1933: ♂ Java.

B.M. 4 ♂ 7 ♀ S. Burma (Mergui to Victoria Point). 4 ♂ 4 ♀ Pen Siam. 1 ♂ Langkawei Is. 17 ♂ 13 ♀ Malaya. 1 ♂ Lingga Is. 17 ♂ 7 ♀ Sumatra. 22 ♂ 11 ♀ Java. 30 ♂ 17 ♀ Borneo. 1 ♂ 1 ♀ Palawan.

(g). Only differs from *gana* in being darker and unh the submarginal dark markings are enlarged and more extensive.

Sub-sp. **jainas** Fruhstorfer 1910: ♂ Nias: type B.M.
B.M. 23 ♂ 14 ♀ Nias.
(h). Uph tornal white area narrower, more or less suffused. Unh the apical dark area runs broadly along the termen to tornus.

Sub-sp. **narba** Evans 1942: ♂ Batoe Is.: type B.M.
B.M. 4 ♂ 2 ♀ Batoe Is. 1 ♂ 1 ♀ S. Natuna Is. 1 ♂ 2 ♀ Sipora.
(i). In the Philippines the white tornal area uph is bordered by 3 or more dark spots, which may be more or less united to a continuous band. There are two forms: DSF (*karea*) with the dark spots separated: WSF (*elegans*) white area narrower and the spots contiguous, also wings more rounded. ♂ F 20–22 mm.

Sub-sp. **elegans** Mabille 1877: ♂ Mindoro: type B.M. DSF fig Seitz, pl. 164h ♂ as *paceka* and 165a as *karea*. WSF fig Semper 1892, pl. 49 ♂ and Seitz, pl. 164 h as *elegans*.
Synonym. *karea* Mabille 1891: ♂ Philippines.
B.M. 24 ♂ 12 ♀ DSF, 3 ♂ WSF, Mindanao. 1 ♀ DSF Bazilan. 1 ♂ 1 ♀ DSF Luzon. 2 ♀ WSF Pollilo. 10 ♂ 6 ♀ WSF Mindoro.
(j). Large WSF form with wings prolonged, ♂ F 22 mm. Upf with hyaline discal dots in spaces 4 and 5, absent in *elegans*, and uph continuous broad brown border.

Sub-sp. **semperi** Fruhstorfer 1910: ♂ Camiguin di Luzon: type B.M.
B.M. 2 ♂ type loc.

3 (2). Uph tornal white area very broad, occupying one-third of the wing and with 3 black spots thereon: dark spot in space 6 nearer to termen than to origin of vein 7. Large, ♂ F 25 mm.

parra. 4 sub-species.
(a). ♂ H not conspicuously elongate at tornus: termen convex in DSF, straighter in WSF. Uph white area not penetrating behind the large black discal spot: sub-marginal spot at end of vein 1b often absent in DSF and in WSF never more conspicuous than the spot at end of vein 3.

Sub-sp. **gala** nov: ♂ Sikkim: O. Müller: type B.M. Fig Lep Ind as *gana*.

B.M. 19 ♂ 23 ♀ Sikkim. 5 ♂ 1 ♀ Assam. 11 ♂ 2 ♀ Burma (to Mergui). 1 ♂ 1 ♀ Siam. 1 ♂ Indo-China.

(b). ♂ H conspicuously elongate and termen straight. Uph white area not penetrating behind the large black discal spot. Unh spot at end of vein 1b more conspicuous than that at end of vein 3. Uph spot at end of vein 2 much larger than the other two.

Sub-sp. **naxos** nov: ♂ Perak: Lakatt and Pamboo: July–Aug. 1895: type B.M.

B.M. 5 ♂ 1 ♀ Malaya.

(c). As *naxos*, but uph the 3 black spots equally large.

Sub-sp. **niasana** Mabille & Boullet 1916: ♂ Nias.

B.M. 9 ♂ Nias.

(d). As *naxos*, but uph the white area penetrates behind the large black discal spot in ♂ and ♀.

Sub-sp. **parra** Fruhstorfer 1910: ♂ N. Borneo: type B.M. Fig Seitz, pl. 164h ♂ as *avala*; Rhop Java as *gana*.

Synonym. *elongata* Mabille & Boullet 1916: ♂ Sumatra.

B.M. 1 ♀ Sumatra. 1 ♀ Banka. 10 ♂ 1 ♀ Java. 14 ♂ 3 ♀ Borneo. 1 ♂ Palawan.

4 (2b). Uph with a narrow, spotless tornal white area, more or less surmounted with bluish scaling. Above black, no signs of darker markings. Unh spotless white below vein 6. ♂ F 18 mm.

lavata Butler 1879: ♀ Malacca: type B.M.: figured. Fig Distant & Seitz.

Synonym. *albovittata* Moore 1883: ♂ Borneo: type B.M.

B.M. 1 ♂ 1 ♀ S. Burma (Tavoy, Victoria Point). 1 ♂ 1 ♀ Pen Siam. 4 ♂ 3 ♀ Malaya. 3 ♂ Sumatra. 2 ♂ Java. 9 ♂ 1 ♀ Borneo. 2 ♀ Natuna.

5a (1a). F with a hyaline spot in space 11 over cell spot. Hind tibiae in ♂ with a short recumbent hair pencil on inner side and difficult to see. End uncus undivided. Antennal club nudum 16.

Nestus Group

5b (11a). Cuiller of clasp undivided, but may be furnished with slender processes. Upf lower hyaline cell spot and spots in spaces 2 and 3 generally feebly developed or absent. Uph submarginal spots separate except in WSF. Unf generally without a double subtornal white spot. India and China to Java and Borneo.

5c (9a). Uph no dark discal spot in space 1c (*tanda*, aberrant).

5 (6a). Uph ♂ and ♀ no spot at end of vein 1b, only at ends of veins 2 and 3: tornal white area very broad. ♂ F 18 mm.

calligana Butler 1879: ♂ Malacca: type B.M.: figured. Fig Distant; Rhop Java as *menaka*.

Synonym. *yapatha* Fruhstorfer 1910: ♂ Nias: type B.M.

B.M. 1 ♀ Naga Hills (?). 6 ♂ 4 ♀ Malaya. 5 ♂ 4 ♀ Sumatra. 13 ♂ 4 ♀ Nias. 1 ♂ 1 ♀ Banka. 4 ♂ Java. 6 ♂ 1 ♀ Borneo.

6a (5). Uph always with a dark spot at end of vein 1b.

6b (8). This spot at least twice as large as the spot at end of vein 2.

6 (7). F always with a hyaline dot in space 3. Uph tornal white area narrow in ♂, not extending above vein 3 and bearing only 2 submarginal spots. ♂ F 17 mm.

toba. 2 sub-species.

(a). ♂ uph spot at end of vein 2 a dot; white area along ⅓ dorsum in ♂, ½ in ♀.

Sub-sp. **toba** De Nicéville 1896: ♂ Sumatra: figured.

B.M. 4 ♂ 2 ♀ S. Burma (Mergui). 2 ♂ 2 ♀ Malaya. 1 ♂ 1 ♀ Sumatra. 5 ♂ Borneo.

(b). ♂ uph spot at end of vein 2 much larger; white area along ¼ dorsum in ♂, ⅓ in ♀.

Sub-sp. **nana** Elwes & Edwards 1897: ♂ Nias: type B.M.: figured. Fig Seitz as *toba*.

B.M. 12 ♂ 6 ♀ Nias.

7 (6). F no hyaline dot in space 3.

waterstradti. 2 sub-species.

(a). ♂ F 18 mm. Uph white area narrow, 7 mm.: spots at ends of veins 2 and 3 well marked, triangular.

Sub-sp. **talanga** nov: ♂ Gunong Talang, Pad Bovenland, Sumatra: type B.M.

B.M. 1 ♂ 1 ♀ Malaya. 3 ♂ 3 ♀ Sumatra. 13 ♂ 1 ♀ Borneo, Sarawak.

(b). ♂ F 20 mm. Uph ♂ white area 9 mm.: spots at ends of veins 2 and 3 mere dots. The mountain form in Borneo.

Sub-sp. **waterstradti** Elwes & Edwards 1897: ♂ Kina Balu: type B.M.: figured. Fig in Seitz, pl. 165b, is of *litigiosa*. B.M. 22 ♂ 14 ♀ Borneo, Kina Balu, Mt. Mulu, Mt. Dulit, Mt. Matang.

8 (6b). Uph spot at end of vein 1b equal to or only slightly larger than the spot at end of vein 2: with 4 submarginal spots.

litigiosa. 6 sub-species.

(a). Clasp in (a) to (c) with the cuiller tapered to a blunt point and with a small style turned inwards. Upf with a hyaline dot in space 3. With 2 seasonal forms: DSF uph submarginal spots well separated: WSF more or less conjoined. Ceylon specimens are large, ♂ F 19 mm. WSF, 22 mm. DSF: unh a narrow brown line along the termen linking the bases of the spots.

Sub-sp. **ceylonica** Evans 1932: ♂ Ceylon: type B.M. Fig Seitz as *gavina*, ♂ WSF; Lep Ceylon as *atticus*, DSF. B.M. 26 ♂ 2 ♀ WSF, 6 ♂ 5 ♀ DSF, Ceylon.

(b). Smaller, ♂ F 18 mm. WSF, 19 DSF. Unh DSF no brown terminal line. In WSF uph submarginal spots larger and often conjoined.

Sub-sp. **litigiosa** Möschler 1878: ♂ Sylhet. Fig Lep Ind WSF; Seitz, pl. 165a ♀ (nec ♂) as *vajuna*, pl. 165a as *menaka* WSF and pl. 165b as *waterstradti*, DSF.

Synonyms. *vajuna* Fruhstorfer 1910: ♂ WSF, N. Kanara: type B.M.

eson (Boisduval MS) Evans 1926; cited Moore 1857 = *litigiosa*.

kotoshona Sonan 1936: ♂ Formosa: figured.

B.M. 21 ♂ 21 ♀ S. India. 2 ♀ N.W. Himalayas (?). 16 ♂ 15 ♀ Sikkim. 15 ♂ 15 ♀ Assam. 16 ♂ 10 ♀ Burma (to Ataran). 6 ♂ 5 ♀ Siam. 1 ♂ 1 ♀ Indo-China. 10 ♂ 10 ♀ Hainan. 1 ♀ Yunnan. 1 ♂ 2 ♀ Kwang Si. 9 ♂ 7 ♀ Kwang Tung (Langkawi Is, coll Eliot).

(c). Uph dark border very broad, completely conjoined in WSF, spots contiguous in DSF. Upf upper cell spot much enlarged.

Sub-sp. **andamanica** Evans 1932: ♂ S. Andamans, WSF: type B.M.

Synonym. *major* Evans 1932: ♂ S. Andamans, DSF: type B.M.

B.M. 5 ♂ 2 ♀ WSF, 2 ♂ 2 ♀ DSF, Andamans.

(d). End of clasp rounded and furnished with a short curved process with serrate edges, from the inner tip of the cuiller: no style. Upf no hyaline dot in space 3. Otherwise as *litigiosa* and with similar seasonal forms. ♂ F 19 mm.

Sub-sp. **ultra** Evans 1932: ♂ Victoria Point, S. Burma: type B.M.

B.M. 5 ♂ 4 ♀ S. Burma (Tavoy, Mergui). 1 ♂ 1 ♀ Pen Siam. 16 ♂ 1 ♀ Malaya. 8 ♂ 3 ♀ Nias. 9 ♂ 5 ♀ Sumatra. 2 ♂ 1 ♀ Banka. 23 ♂ 4 ♀ Borneo. 3 ♂ Palawan.

(e). End of clasp rounded and furnished with a long curved and twisted process, thin and not serrate: with a short style directed outwards. Inseparable from *ultra* DSF: no WSF.

Sub-sp. **tubulus** Fruhstorfer 1910: ♂ Java: type B.M.

B.M. 33 ♂ 19 ♀ Java. 5 ♂ 1 ♀ Bali. 6 ♂ 3 ♀ Lombok.

(f). Genitalia as *tubulus*, but style shorter and absent in Flores. Upf with 1 or 2 distinct hyaline dots in space 1b. Unf the dark discal spot in space 6 is just conjoined to the dark costal border, instead of being just separate: otherwise as *tubulus*. ♂ F 20 mm.

Sub-sp. **sambavana** Elwes & Edwards 1897: ♂ Sambawa: type B.M.: figured. Fig Seitz.

B.M. 3 ♂ 1 ♀ Sambawa. 2 ♂ Flores.

9a (5c). Uph with a dark discal spot in space 1c (except *tanda*).

9 (10). Upf usually with a hyaline dot in space 3. ♂ outer half of abdomen white above: ♀ white or striped at end.

menaka. 4 sub-species.

(a). Large, ♂ F 23 mm. Uph dark border heavier and often a dark discal spot in space 2 as well as in space 3. No DSF.

Sub-sp. **mantra** Evans 1934: ♂ W. China: type B.M. Fig Leech and Seitz I as *atticus*.

B.M. 9 ♂ 11 ♀ W. Szechwan (Ta Tsien Lou area). 1 ♀ Fukien.

(b). Smaller ♂ F 21 mm. With 2 well-defined seasonal forms: WSF with contiguous large dark submarginal spots uph: separated in DSF. Uph always with a detached discal spot in space 3.

Sub-sp. **menaka** Moore 1865: ♂ Bengal: type B.M. Fig Lep Ind; fig in Seitz, pl. 165 a is of *litigiosa* WSF.

Synonyms. *vulturna* Plötz 1884: Calcutta.

gavina Fruhstorfer 1910: ♂ Tonkin: type B.M.

B.M. 18 ♂ 12 ♀ N.W. Himalayas (Kulu to Kumaon). 24 ♂ 23 ♀ Sikkim. 3 ♂ Bhutan. 23 ♂ 21 ♀ Assam. 10 ♂ 3 ♀ Burma (to Ataran). 2 ♂ Siam. 1 ♂ 1 ♀ Indo-China. 5 ♂ 5 ♀ Hainan.

(c). Like *menaka* DSF, but uph the dark discal spot in space 3 is conjoined to the large discal spot in spaces 4–5 and veins 3 and 4 are more or less darkened, also the white area does not extend into space 6. ♂ F 22 mm.

Sub-sp. **manis** Evans 1933: ♂ Sungei Bertam, Perak, 5,000 ft.: type B.M.

B.M. 1 ♂ 2 ♀ Malaya.

(d). More like *litigiosa*, but with the genitalia of *menaka*. ♂ F 22 mm. Upf conspicuous hyaline dots in spaces 2 and 3. Uph white area as in *manis* and discal spot in space 3 conjoined to the large spot in spaces 4–5: submarginal spots small and sub-equal: no trace of a dark discal spot in space 1c.

Sub-sp. **tanda** nov: ♂ Lebong Tandai, Mt. Lalangia, W. Sumatra, 5,000 ft., July 1923: C. J. Brooks: type B.M.

B.M. 9 ♂ type loc.: in company with *waterstradti talanga*.

10 (9). Upf no hyaline spot in space 3. ♂ ♀ outer half of abdomen conspicuously white striped above. ♂ F 20–22 mm.

cohaerens. 3 sub-species.

(a). Uph no trace of a discal spot in space 3 or on vein 3. Two well-marked seasonal forms, resembling *litigiosa*.

Sub-sp. ***cynthia** Evans 1934: ♂ DSF Karen Hills: type B.M.

Synonym. *pintra* Evans 1934: ♂ WSF China: type B.M.

B.M. 1 ♂ WSF Murree, N.W. Himalayas. 1 ♂ WSF Nepal. 1 ♀ DSF Sikkim. 5 ♂ 1 ♀ DSF, 6 ♂ 1 ♀ WSF Assam. 1 ♂ 2 ♀ DSF, 3 ♂ 2 ♀ WSF S. Shan States. 9 ♂ 6 ♀ DSF, 1 ♂ WSF Karen Hills. 1 ♂ WSF China.

(b). Intermediate between DSF and WSF *cynthia*: uph no discal spot in space 3, but vein 3 has a narrow spot.

Sub-sp. **cinda** Evans 1933: ♂ Fraser's Hill, Malaya: type B.M.

B.M. Only the type.

(c). Uph as WSF *cynthia*, but uph with an irregular narrow brown discal band linking the dark discal spots in spaces 1c and 4–5 and enclosing a white band, crossed by dark veins, between it and the dark submarginal band.

Sub-sp. **cohaerens** Mabille 1914: ♂ Formosa. Fig Esaki 1931 and 1932.

Synonym. *formosana* Matsumura 1919: ♂ Formosa: figured. Fig Matsumura 1932.

B.M. 1 ♂ 1 ♀ Formosa.

11a (5b). Cuiller of clasp deeply divided. Upf hyaline spots present in spaces 2, 3 and lower part of cell (*kina* aberrant). Unf generally with a double sub-tornal white spot. Philippines and Celebes to New Guinea.

11 (12). Divisions of cuiller divergent, meeting basally at an acute angle. Unh the dark spots in spaces 6 and 7 always more or less traceable on the brown costal area and the spot in space 6 rather nearer to the origin of vein 7 than to the termen.

trebellius. 11 sub-species.

(a). Uph with widely separated decreasing submarginal spots at ends of veins 1b, 2 and 3: white tornal area restricted, extended $\frac{1}{3}$ along dorsum and to just below vein 4 at termen. Upf spot in space 2 absent; present in all other forms of *trebellius* and *nestus*. ♂ F 20 mm. Clasp as in *martinus*, but the style is shorter.

Sub-sp. ***kina** Evans 1934: ♂ Kina Balu, Borneo: type B.M.

B.M. Only the type.

(b). Uph like *litigiosa* WSF. Clasp style outwardly serrate, not as long as back portion of cuiller. ♂ F 20 mm.

Sub-sp. **martinus** Plötz 1884: ♂ Philippines. Fig Semper 1892; Seitz.

Synonyms. *stramineipennis* (Semper MS) Mabille 1903 = *martinus*.

nicaja Fruhstorfer 1910: ♂ Bazilan: type B.M.

B.M. 1 ♂ 1 ♀ Formosa (? wrong label). 7 ♂ 5 ♀ Mindanao. 2 ♂ W. Sumar. 6 ♂ 2 ♀ Pollilo. 3 ♂ 4 ♀ Mindoro. 1 ♀ Los Banos. 1 ♀ Luzon. 3 ♂ 1 ♀ Bazilan. 7 ♂ 2 ♀ Philippines.

(c). In the Celebes area, (c) to (e), as in *japetus*, the dark costal area extends downwards and the basal area is sullied. The Celebes form is large as usual, ♂ F 24 mm. Uph dark border broad, white band of same width, 3 mm. Clasp style elongate, longer than back of cuiller.

Sub-sp. **trebellius** Hopffer 1874: ♂ Celebes. Fig Seitz.

B.M. 34 ♂ 10 ♀ Celebes. 1 ♀ Letti.

(d). Smaller, ♂ F 20 mm. Unh dark discal spots from space 1c to 4.

Sub-sp. **mitra** Mabille 1895: ♂ Sula Is.

Synonym. *avathana* Fruhstorfer 1910: ♀ Sula Besi: type B.M.

B.M. 4 ♂ 3 ♀ Sula Besi. 7 ♂ 3 ♀ Sula Mangoli. 13 ♂ 9 ♀ Sula. 1 ♂ 1 ♀ Xulla Is.

(e). Uph with suffused traces of the white discal band. Unh also with the white area more or less eliminated. ♂ F 20 mm.

Sub-sp. **sem** Mabille 1883: ♂ Sangir: type B.M.

B.M. 1 ♂ 4 ♀ Talaut. 13 ♂ 2 ♀ Sangir.

(f). In the New Guinea area, (f) to (h), the white tornal area uph is nearly as wide as in *litigiosa*, the dark spots being large and conjoined. The clasp is as long as the back of the cuiller. ♂ F 20 mm. In Aru the white area uph is sullied and unh the dark spots in spaces 4–5 are conjoined to the dark border.

Sub-sp. **neira** Plötz 1885: ♂ Aru. Fig. Seitz.

B.M. 11 ♂ 5 ♀ Aru. 1 ♂ Amboina and 1 ♀ Batchian (? wrong labels).

(g). Uph white area clear. Unh discal spots in spaces 4–5 and 6 clear of the dark borders: submarginal spots separated.

Sub-sp. **moti** Evans 1934: ♂ Waigou: type B.M.

B.M. 4 ♂ Goram. 8 ♂ Mysol. 2 ♂ Mefor Is. 2 ♂ 2 ♀ Waigou.

(h). Intermediate between *moti* and *neira*, both of which occur as infrequent varieties. Uph white area clear: unh submarginal spots conjoined and dark spot in space 6 submerged by the dark costal area.

Sub-sp. **canonicus** Fruhstorfer 1910: ♂ New Guinea: type B.M.

Synonym. *persimilis* Rothschild 1916: ♂ Utakwa River: type B.M.

B.M. 35 ♂ 26 ♀ New Guinea. 12 ♂ 9 ♀ Roon Is. 1 ♂ 1 ♀ Jobi. 2 ♂ 1 ♀ Dampier. 1 ♀ Goodenough. 2 ♀ Fergussons.

(i). In the Solomons, (i) to (k), the white area uph is reduced and the outer border is solid: unh discal spots conjoined to the outer dark area. ♂ F 20 mm. Abdomen above brown. In the S.W. the white band uph is clear, 4 mm. wide, in most of the islands, but exceptions occur (see *sheba*).

Sub-sp. **vella** Evans 1934: ♂ Vella Lavella: type B.M.

B.M. 2 ♂ 1 ♀ Vella Lavella. 1 ♂ Kalumbanga. 1 ♂ New Georgia. 1 ♀ Christoval.

(j). In the easterly islands generally the white band is only 1–2 mm. wide and is divided by dark veins.

Sub-sp. ***sheba** Evans 1934: ♂ Guadalcanar: type B.M.

B.M. 4 ♂ 1 ♀ Bougainville. 1 ♂ 2 ♀ Rendova. 5 ♂ 2 ♀ Guadalcanar. 4 ♂ 3 ♀ Choiseul. 2 ♂ 3 ♀ Ysabel Is.

(k). In Treasury Is., as in the *japetus* form from that island, the white colouring on either side is vestigial, very much as in *sem* from Sangir. In *lola* there are traces of a macular whitish discal band uph and unh.

Sub-sp. **lola** nov: ♂ Treasury Is.: type B.M.

B.M. Only the type.

12 (11). Divisions of cuiller widely separated at their base, parallel, outer arm longer than inner arm. Unh the dark spots in space 7 generally untraceable and the spot in space 6 always nearer to the termen than to the origin of vein 7.

nestus. 10 sub-species.

(a). Typically large, ♂ F 22 mm.: uph unmarked except for a whitish subtornal spot on dorsum: unh brown, generally with a whitish bar at end cell and some irregular whitish patches between there and dorsum. Considerable variation in size.

Sub-sp. **gilolensis** Mabille 1878: ♀ Gilolo: type B.M. Fig Elwes & Edwards and Seitz as *nestus*.

Synonym. *ternatensis* Mabille & Boullet 1916: ♀ Ternate.

B.M. 7 ♂ 12 ♀ Halmaheira. 29 ♂ 29 ♀ Batchian. 4 ♂ 7 ♀ Ternate.

(b). Smaller, ♂ F 20 mm. Uph generally with a sullied whitish macular discal band or traces thereof. Unh white below vein 6 and the radius, with conjoined or just separated dark submarginal spots and a discal spot in spaces 4–5.

Sub-sp. **nestus** Felder 1860: ♂ Amboina. Figures by Elwes & Edwards and Seitz are of *gilolensis*.

Synonym. *metanga* Ribbe 1889: ♂ Great Ceram: figured.

B.M. 9 ♂ 6 ♀ Amboina. 20 ♂ 13 ♀ Ceram. 1 ♂ 1 ♀ Gisser. 1 ♂ 1 ♀ Golo. 2 ♂ 1 ♀ Goram Laut. 2 ♂ Manovolka.

(c). Uph with a clear white narrow, 5 mm. wide, subtornal area; the dark conical submarginal spots conjoined to a band, veins 2 and 3 darkened. Unh border spots well separated.

Sub-sp. **juncta** nov: ♂ Obi: type B.M.

B.M. 5 ♂ 4 ♀ Obi.

(d). Similar to *juncta*, but uph the border spots are separate: like *korela*, but the white area half as wide. ♂ F 20 mm.

Sub-sp. **pentaja** Fruhstorfer 1910: ♂ Buru: type B.M.

B.M. 5 ♂ 7 ♀ Buru.

(e). In New Guinea the white area uph is very broad, 8 mm., and extends up behind the large black discal spot: the border spots may be well separated (*korela*), resembling *japetus kowaia*, or may be united to form an inwardly irregular band (*monachus*). ♂ F 22 mm.

Sub-sp. **korela** Mabille 1891: ♂ Waigou: Fig Seitz as *sivoa* and *swinhoei*.

Synonyms. *sivoa* Swinhoe 1904: ♂ Humboldt Bay: type B.M.
curiosa Swinhoe 1905: ♀ German N.G.: type B.M.
monachus Fruhstorfer 1910: ♀ German N.G.: type B.M.
curatus Fruhstorfer 1910: ♂ Dutch N.G.: type B.M.
swinhoei Fruhstorfer 1910: for 2nd fig of *neira* by Swinhoe 1908.

B.M. 1 ♂ Amboina and 2 ♂ "Gorom" (? wrong label or strays). 1 ♂ 3 ♀ Kei Is. 7 ♂ 6 ♀ Aru. 2 ♂ 1 ♀ Misol. 50 ♂ 46 ♀ New Guinea. 3 ♂ 1 ♀ Sudest. 1 ♂ 1 ♀ Rossell.

(f). In the islands off E. New Guinea the white area uph is reduced to 5 mm. or less. On Schouten the border spots uph are conjoined only at the termen and unh are usually separated. A dark discal spot is usually present in space 3 uph. ♂ F 20 mm.

Sub-sp. **biakana** Evans 1934: ♂ Biak, Schouten Is.: type B.M.

B.M. 7 ♂ 8 ♀ Schouten Is. 1 ♂ Teour.

(g). Similar, border uph narrow, completely conjoined and inwardly irregular: unh inner edge nearly regular and the dark discal spots conjoined thereto.

Sub-sp. **mefora** Evans 1934: ♂ Mefor Is.: type B.M.

B.M. 10 ♂ 9 ♀ Mefor Is.

(h). Uph dark border as in *mefora*, but the outer edges of the white area are suffused and there is a tendency for the veins to be darkened: unh as *mefora*.

Sub-sp. **suffusus** Rothschild 1915: ♂ Vulcan Is.: type B.M.

B.M. 4 ♂ 1 ♀ Jobi. 2 ♂ 1 ♀ Vulcan. 2 ♂ Rook Is. 2 ♂ Dampier. 3 ♂ 3 ♀ Goodenough. 4 ♂ Fergussons. 2 ♂ 1 ♀ Trobriands.

(i). Uph white area as *mefora*: outer border narrow with the inner edge even. Unh border still narrower and even. ♂ F 20 mm.

Sub-sp. **presbyter** Butler 1882: ♂ Duke of York Is.: type B.M.

Synonym. *gracilentus* Weymer 1887: ♂ New Britain.

B.M. 6 ♂ 7 ♀ New Britain. 1 ♂ 3 ♀ New Hanover. 1 ♂ 1 ♀ New Ireland. 2 ♂ Duke of York Is. 1 ♂ New Lauenburg. 1 ♂ New Guinea (? wrong label).

(j). The darkest: shows a return to typical *nestus*, from which it is inseparable uph: white area reduced to a whitish patch on dorsum above tornus. Unh white area sullied, no white bar at end cell, dark border broad and inner edge suffused. ♂ F 20 mm.

Sub-sp. **brunta** nov: ♂ Woodlark Is.: March 1897: type B.M. B.M. 1 ♂ Woodlark Is. 1 ♂ Egum Is. (i.e. Egham, between Trobriands and Woodlark).

C.13. MOOREANA Evans 1926: type *trichoneura* Felder: fixed by author.

1 (2). Upf dark brown with numerous small hyaline white spots. ♂ F 20 mm.

trichoneura. 6 sub-species.

(a). Uph tornal third orange. Unh tornal third also orange: below dark brown costa, which extends along termen to space 5; the basal brown area to beyond mid wing and mid dorsum and is cut into streaks by pale veins.

Sub-sp. **pralaya** Moore 1865: ♂ Bengal: type B.M. Fig Lep Ind.

Synonym. *pellita* Fruhstorfer 1919: ♂ Tonkin: type B.M.

B.M. 1 ♂ Kumaon. 13 ♂ 5 ♀ Sikkim. 17 ♂ 6 ♀ Assam. 1 ♀ N. Burma, Ruby Mines. 1 ♂ S. Shan St. 1 ♂ Karens. 1 ♂ 1 ♀ Siam. 3 ♂ 2 ♀ Indo-China.

(b). Tornal orange area uph restricted: unh dark costal area extends along termen to vein 3.

Sub-sp. **multipunctatus** Crowley 1900: ♂ Hainan: type B.M. B.M. 5 ♂ Hainan.

(c). Uph tornal third lighter orange. Unh white up to mid cell and space 5. In Burma and Siam intergrades with *pralaya*.

Sub-sp. **trichoneura** C. & R. Felder 1860: ♂ Malaya: type B.M. Fig by Distant; Lep Ind; Seitz. Felder's figure (1867) is of *nava*.

B.M. 4 ♂ 4 ♀ Kerans. 14 ♂ 5 ♀ Ataran. 3 ♂ 2 ♀ Tavoy. 3 ♂ 2 ♀ Mergui. 5 ♂ 1 ♀ Siam. 5 ♂ 5 ♀ Malaya. 7 ♂ 3 ♀ Sumatra.

(d). As *trichoneura*, but smaller and unf basal area with conspicuous white streaks.

Sub-sp. **nivosa** Fruhstorfer 1909: ♀ Nias: type B.M.
B.M. 8 ♂ 4 ♀ Nias.
(e). As *trichoneura*, but uph tornal area white, more or less yellow tinged.

Sub-sp. **trichoneuroides** Elwes & Edwards 1897: ♀ Kina Balu: type B.M. Fig in Seitz.
B.M. 16 ♂ 6 ♀ Borneo.
(f). A reversion to *pralaya*, uph and unh tornal area orange. Unh dark costal area not extending below vein 6: yellow area extensive, leaving a more or less developed row of small black discal spots.

Sub-sp. **nava** Fruhstorfer 1909: ♂ W. Java: type B.M. Fig by Felder 1867 as *trichoneura*.
B.M. 10 ♂ 1 ♀ Java.

2 (1). Above dark brown: upf with a row of 5 yellow elongate hyaline spots and a large quadrate opaque yellow tornal spot: uph with a broad yellow border, reaching to apex. ♂ F 22 mm.

princeps Semper 1892: ♂ Panaon, Mindanao: figured. Fig in Seitz.
B.M. 5 ♂ 4 ♀ Mindanao.

C.14. ABRAXIMORPHA Elwes & Edwards 1897: type *davidii* Mabille: fixed by authors.

1 (2). Upf with a white streak on costa over cell spot and a white bar at end cell: no white dash at base of space 1b. End of abdomen brown. Hind tibia without a hair tuft. End of uncus bifid.

davidii. 4 sub-species.
(a). Upf apical spots small and irregular, not joined to the spots in spaces 4 and 5. Unf dark post-discal spots in spaces 2 and 3 large, usually rounded and separate. ♂ F 25 mm.

Sub-sp. **davidii** Mabille 1876: Mupin. Fig Leech 1894; Seitz I.
B.M. 1 ♂ "Korea". 1 ♀ Chekiang. 1 ♂ S. Shensi. 11 ♂ 6 ♀ Hupeh. 3 ♂ 1 ♀ Kiang Si. 40 ♂ 15 ♀ W. Szechwan (Ta Tsien Lou area).

(b). Upf apical spots more regular and elongate, not joined to spots in spaces 4 and 5. Unf dark post-discal spots in spaces 2 and 3 narrow, rectangular and conjoined. Generally paler and with broader markings. ♂ F 25 mm.

Sub-sp. **esta** nov: ♂ Tonkin, Ngai Tio, 4,800 ft., 31st May 1924 (H. Stevens): type B.M.

B.M. 1 ♀ Sadon, N. Burma. 2 ♂ S. Shan St. 1 ♂ Yunnan, Teng Yueh Ting. 6 ♂ Tonkin.

(c). Like *davidii*, but smaller, ♂ F 23 mm. and upf apical white spots conjoined to those in spaces 4 and 5.

Sub-sp. **ermasis** Fruhstorfer 1914: ♂ Formosa: type B.M. Fig Esaki 1931.

B.M. 7 ♂ 1 ♀ Formosa.

(d). Upf and unf dark markings as in *ermasis*, but divided by narrow white veins: uph dark markings smaller and separated by white veins. ♂ F 22 mm. Genitalia as for *davidii*, but looking very different.

Sub-sp. **elfina** nov: ♂ "Java", ex coll Boisduval: type B.M.

B.M. Only the type, which may be an aberration.

2 (1). Upf no white streak on costa, nor bar end cell: apical spots from space 4 to space 8 in line: a white streak at base of space 1b. End abdomen orange. Hind tibia with a pale yellow recumbent hair tuft. End of uncus undivided, clasp very broad and complex. ♂ 30 mm.

heringi Mell 1922: ♀ Drachenkopf, N. Kwang Tung.

B.M. 1 ♂ Kuatun, Fukien.

C.15. EXOMETOECA Meyrick 1887: type *nycteris* Meyrick: sole species included.

Single species. ♂ F 16 mm. Above rather pale silky ferruginous brown: upf with 3 conjoined hyaline white apical spots and 2 minute discal spots in spaces 2 and 3: uph apex broadly darker and vestiges of minute dark discal spots. Below grey: unf with a broad purple-black post-discal band: unh with minute black discal spots.

nycteris Meyrick 1887: ♂ Albany, W. Australia: type B.M. Fig Waterhouse & Lyell 1914 and Waterhouse 1932.

B.M. 19 ♂ 12 ♀ W. Australia (Bunbury, Albany).

C.16. CTENOPTILUM De Nicéville 1890: type *vasava* Moore: fixed by author.

Above ochreous brown. Upf and uph with white hyaline spots crowded together.

1 (2). Upf hyaline spot at apex in space 7 elongate, much longer than the spots on either side. Above borders broadly bright chestnut, contrasting with the darker bases.

vasava. 2 sub-species.

(a). Larger, ♂ F 18–19 mm.: spots larger. Upf hyaline spot base cell always present.

Sub-sp. **chinensis** Elwes & Edwards 1897: ♂ Ningpo: type B.M. Fig Leech 1894 as *vasava* and Seitz I; Lep Ind, pl. 777/3a.3c ♂.

B.M. 9 ♂ 9 ♀ Hupeh. 1 ♂ 1 ♀ Chekiang. 11 ♂ Kiang Su. 3 ♂ Fukien. 5 ♂ 1 ♀ Leon Fang.

(b). Smaller, ♂ 16–17 mm.: paler, more uniform. Upf no hyaline spot at base of cell.

Sub-sp. **vasava** Moore 1865: ♂ Darjiling: type B.M. Fig Lep Ind, pl. 777/3. 3b ♂; Seitz.

B.M. 23 ♂ Sikkim. 24 ♂ Assam. 27 ♂ 1 ♀ Burma to Tavoy. 6 ♂ Siam.

2 (1). Upf hyaline spot in space 7 no longer than the other apical spots. Above uniform pale brown, with borders not contrasting. Upf hyaline spot base cell present. ♂ F 15 to 17 mm.

multiguttata De Nicéville 1890: ♂ Meplay, Burma: figured. Fig Lep Ind.

B.M. 12 ♂ Manipur. 36 ♂ 1 ♀ Burma to Ataran. 3 ♂ Siam.

C.17. ODONTOPTILUM De Nicéville 1890: type *angulata* Felder: fixed by author as *sura* Moore, which is a synonym of *angulata*.

1 (2a). Upf without white lines: ground colour more or less variegated.

angulata. 5 sub-species.

(a). H cilia pale brown, never entirely white. Scapulae normal. On the Indian continent, where seasonal changes are pronounced, there are generally 2 well-marked seasonal forms. WSF darker with the dark markings intensified. DSF paler with the dark markings reduced. These forms merge in areas with an unchanging climate to a single intermediate form. ♂ F 20 mm.

Sub-sp. **angulata** Felder 1862: ♂ Hong Kong: type B.M. Fig Felder 1867.

Synonyms. *sura* Moore 1865: ♂ Sikkim: type B.M. Fig Distant 1886; Lep Ind; Rhop Java; Seitz.

sumatrana Fruhstorfer 1909: ♂ Sumatra: type B.M.

mahabini Fruhstorfer 1909: ♂ Java: type B.M.

B.M. 2 ♂ Ceylon. 14 ♂ 13 ♀ S. India. 4 ♂ N.W. Himalayas (Kangra, Kulu). 1 ♂ Nepal. 17 ♂ 2 ♀ Sikkim. 3 ♂ Bhutan. 26 ♂ 1 ♀ Assam. 19 ♂ 15 ♀ Burma. 7 ♂ Siam. 2 ♂ 3 ♀ Indo-China. 4 ♂ Hainan. 5 ♂ 2 ♀ Hong Kong. 6 ♂ 2 ♀ Malaya. 14 ♂ Sumatra. 16 ♂ 8 ♀ Java. 1 ♂ Borneo.

(b). H cilia white. Scapulae normal. Dark, with more rounded wings, ♂ F 18 mm. Uph termen border whitened and with a conspicuous discal row of white-edged brown spots. Upf discal spot smaller than usual.

Sub-sp. **hyperides** Doherty 1891: ♂ Sambawa: type B.M.

B.M. 3 ♂ Lombok. 3 ♂ Sambawa.

(c). In this and subsequent sub-species the scapulae of ♂ are prolonged as a brown hair pencil fitting into a groove along the basal third of space 1c: also the white hairs along vein 1a, the dorsum and at the tornus are prolonged. ♂ ♀ cilia H white. In *helisa* ♂ the entire uph, except for the base and apex, is covered with pale blue scaling, which extends, more sparsely, to centre of upf. ♂ F 20 mm.

Sub-sp. **helisa** Semper 1892: ♂ Mindanao: no type specified by Semper from his 18 specimens from Luzon, Samar, Bohol, E. Mindanao.

Synonym. *subangulata* Fruhstorfer 1909: ♀ Bazilan: type B.M.

B.M. 14 ♂ 2 ♀ Mindanao. 1 ♂ 1 ♀ Bazilan. 1 ♂ Polillo.

(d). ♂ ♀ upf with a small hyaline cell spot in addition to the usual discal and apical spots. Uph without the pale blue scaling of *helisa*: like *hyperides*, but without the white edged discal brown spots. ♂ F 18 mm.

Sub-sp. **sinka** nov: ♂ Los Banos: 1st March 1924: Miss M. E. Fountaine: type B.M.

B.M. 1 ♂ Los Banos. 1 ♀ Luzon. 2 ♂ ex coll Tytler, marked "Singapore".

(e). Much larger, ♂ F 25 mm. ♂ uph white-scaled from termen to middle: scapular tuft denser and black at end.

Sub-sp. **helias** Felder 1867: ♂ Celebes: type B.M.: figured. Fig Seitz.

B.M. 30 ♂ 1 ♀ Celebes.

2a (1). Upf with conspicuous white lines continued from uph: ground colour uniform dark brown. Scapulae normal. ♂ F 19 mm.

2 (3). Upf with a white bar across wing at base. Uph with 2 conspicuous central white lines, the outer one very irregular.

pygela. 2 sub-species.

(a). Uph the space between the central white lines entirely brown. Upf with hyaline dot in space 3.

Sub-sp. **pygela** Hewitson 1868: ♂ Malacca: type B.M. Fig Hewitson 1873: Seitz.

Synonym. *ragupta* Fruhstorfer 1909: ♂ W. Sumatra: type B.M.

B.M. 17 ♂ 1 ♀ Burma (Karens-Mergui). 1 ♀ Pen Siam. 7 ♂ Malaya. 24 ♂ Sumatra. 1 ♂ Banka. 6 ♂ Nias. 30 ♂ 2 ♀ Borneo.

(b). Uph, in cell and spaces 4–5, the space between the central white lines is white. Upf hyaline spot in space 3 absent.

Sub-sp. **javanica** Fruhstorfer 1909: ♂ W. Java: type B.M. Fig Rhop Java.

B.M. 26 ♂ 5 ♀ Java.

3 (2). Upf base streaked with white. Uph centre third of wing entirely white. F termen in ♂ not truncate.

leptogramma Hewitson 1868: ♂ Philippines: type B.M. Fig. Hewitson 1873; Seitz.

B.M. 27 ♂ 3 ♀ Mindanao. 1 ♂ W. Sumar. 1 ♂ Luzon. 1 ♂ Philippines.

C.18. CAPRONA Wallengren 1857: type *pillaana* Wallengren: sole species included.
Synonyms. *Abaratha* Moore 1881: type *ransonnettii* Felder: fixed by author.
Stethotrix Mabille 1889: type *pillaana* Wallengren: sole species included was *heterogyna* Mabille, which is a synonym of *pillaana*.

An exhaustive examination of the B.M. material has shown that there are 3 Oriental species, often with dimorphic seasonal forms, but the corresponding forms of the species are sometimes so similar superficially, that a genitalia examination is needed for identification. The genitalia are highly asymmetric, not only in the clasps, but the uncus and gnathos are twisted, and the aedeagus emerges on the right.

1 (2, 3). Tip of right clasp bifid, of left simple: aedeagus enlarged at tip and inwardly serrate. Generally in ♂, F produced and H dorsum > costa. ♂ F 18 mm.

ransonnettii. 2 sub-species.

(a). Only a variable WSF occurs. Upf no upper cell spot. Uph with crowded yellow spots about end cell and a broad grey border. Unh almost unmarked white, but the inner, and often the outer, round black spot in space 7 is conspicuous.

Sub-sp. **ransonnettii** Felder 1868: ♀ Ceylon: type B.M. Fig ♂ Lep Ceylon; ♂ Lep Ind, pl. 775/3. 3b; ♂ Seitz, pl. 165 h. Genitalia fig Elwes & Edwards 1897, pl. 23/20 and Ormiston 1924.

B.M. 26 ♂ 17 ♀ Ceylon.

(b). Upf cell spot usually double. Two variable seasonal forms. WSF (*potiphera*) like *ransonnettii*, but unh white with discal and conjoined submarginal dark spots. In extreme forms the upper side becomes uniform dark brown and unh is darkened. DSF (*taylorii*) above, ochreous brown grading from being unmarked to a form with conspicuous yellow areas as in the WSF. Below, ochreous: unh more or less frosted with white scaling, concealing the dark spots, but the inner spot in space 7 is usually conspicuous, serving to separate the species.

Sub-sp. **potiphera** Hewitson 1873: ♀ Nilgiris (WSF): type B.M.: figured.
Synonyms. *taylorii* De Nicéville 1883: ♂ Orissa (DSF): figured. ♀ WSF fig Lep Ind, pl. 775/3a and Evans 1927, pl. 31/32. DSF fig Lep Ind, pl. 775/3d and pl. 776/2 (as *saraya*); Seitz, pl. 165h.
pexadora Plötz 1884 (no loc) is *taylorii*.
B.M. 28 ♂ 23 ♀ WSF, 26 ♂ 5 ♀ DSF, S. India to Bombay. 1 ♀ WSF, Pachmarhi, Centr. Prov. 1 ♂ WSF, 2 ♂ 1 ♀ DSF, Orissa.

2 (1, 3). Tips of both clasps simple, pointed: end of aedeagus as *ransonnettii*. Wings in ♂ squarer: H dorsum = costa.

agama. 4 sub-species.

(a). At least in certain areas with 2 well-marked seasonal forms. Normal form (WSF: *agama*). Above in addition to the usual hyaline spots, the wings are covered with numerous pale yellow to white spots on a dark brown ground. Unh white with 3 rows of conspicuous black spots. *alida* has a very similar form, which differs in having fewer spots uph, the inner spot in space 7 being absent or vestigial and upf the inner spot in space 1b is double. Very variable in size, ♂ F 16–20 mm.: ♀ 21–26 mm.

Dry Season Form (*erosula*). Entirely different and varying from a spotted type to one unmarked except for the hyaline spots: also varying as much in size as the WSF. Above typically brown rather than ochreous with vestigial signs of the dark spotting: unh frosted over with white scaling, more or less concealing the dark spots, which are always large. The spotted form (*saraya*) is more ochreous than brown and the dark spots uph are conspicuous: unh paler ochreous, only thinly frosted and the dark spots prominent. The two forms appear to fly together and intergrade, displaying the same range of variation that occurs in *ransonnettii potiphera* and *alida yerburyi*.

Sub-sp. **agama** Moore 1857: Java: type is the figure of the larva and pupa. Fig as *syrichthus* by Felder 1867; Lep Ind, pl. 776/3c, 3d, 3e (not 3, 3b); Seitz, pl. 165i.

Synonyms. *syrichthus* Felder 1867: ♂ Java (WSF): type B.M.: figured.

erosula Felder 1867: ♂ Celebes (DSF): type B.M.: figured ♀. Fig Seitz, pl. 165 h, ♀; Evans 1927, pl. 32/1 as ♀ *saraya*.

danae Plötz 1884 = *syrichthus*.

saraya Doherty 1886: ♂ Kumaon (DSF). B.M. have a ♂ from Nepal exactly corresponding with Doherty's description. Elwes & Edwards fig is of *alida yerburyi*; Lep Ind fig of ♂ is *taylorii* and ♀ is of *alida vespa*.

siamica Swinhoe 1907: ♀ Siam (DSF): type B.M. Fig Seitz.

pelias Fruhstorfer 1909: ♀ Tonkin (WSF): type B.M.

pelligera Fruhstorfer 1909: ♀ ? Celebes (WSF): type B.M.

mettasuta Fruhstorfer 1909: MS. = "*siamensis*" Swinhoe.

B.M. WSF—2 ♂ 1 ♀ S. India (Palnis, Madura). 1 ♂ 1 ♀ C. India (Jabalpur, Chota Nagpur). 2 ♂ 1 ♀ Orissa. 2 ♂ Bhutan. 2 ♂ 2 ♀ Assam. 15 ♂ 1 ♀ Manipur. 35 ♂ 11 ♀ Burma. 2 ♂ 1 ♀ Siam. 4 ♂ Pen Siam. 4 ♂ 5 ♀ Indo-China (tending to freak). 35 ♂ 9 ♀ Java.

DSF—1 ♂ W. Punjab (near Rawalpindi). 2 ♂ Nepal. 6 ♂ 1 ♀ Khasi Hills. 5 ♂ 2 ♀ Manipur. 11 ♂ 6 ♀ N. and S. Shan St. 9 ♂ 1 ♀ Siam. 4 ♂ 1 ♀ Indo-China. 2 ♂ 1 ♀ Celebes.

(b). A dark *agama* form, spots yellower, smaller and sparser: uph discal spots absent or vestigial. ♂ F 21 mm.

Sub-sp. **brunnea** Evans 1932: ♂ Sumbawa: type B.M.

B.M. 9 ♂ 1 ♀ Sumbawa.

(c). Like *agama*, spots white or pale yellow: uph discal spots absent or vestigial, but the submarginal spots are very conspicuous. ♂ F 18 mm.

Sub-sp. **sumbina** nov: ♂ Sumba: W. Doherty: type B.M.

B.M. 4 ♂ Sumba.

(d). Like the *erosula* form of *agama*. Above paler brown, cilia whiter: upf in space 1b the spots dark instead of hyaline. Unh, under the frosted white surface the dark spots are faint and narrow. ♂ F 18 mm. May prove to be the *erosula* (or DSF) form of *sumbina*.

Sub-sp. **alora** nov: 1 ♂ Alor: W. Doherty: type B.M.

B.M. 2 ♂ Alor.

3 (1, 2). Tip of left clasp more or less bifid or trifid: right clasp simple. Aedeagus with the end not enlarged, furnished with a narrow serrate projection on the inside, well before the end. Wing shape as *agama*.

alida. 4 sub-species.

(a). A form intermediate between *erosula* and *agama*. Above, varying from ferruginous brown with the hyaline markings broadly edged dark brown and faint dark bands uph, not unlike *erosula*, to a form more like *agama* with the numerous spots dusky orange instead of yellowish. Unh white with the dark spots sharply defined as in *agama*, but very much smaller. ♂ F 18 mm. Easily separable from *ransonnettii* by the presence of a pale basal cell spot upf.

Sub-sp. **lanka** Evans 1932: ♂ Ceylon: type B.M. Fig Woodhouse 1942, pl. 34/11 ♂: genitalia fig by Ormiston 1924, pl. 4/11, 12.

B.M. 4 ♂ 1 ♀ Ceylon.

(b). Above like *lanka*, but in the ♂ the ochreous spots upf are paler and more conspicuous. Unh as *lanka*, but the ground colour is pale yellow instead of white.

Sub-sp. **vespa** nov: ♂ Nilgiris: type B.M. ♀ fig Lep Ind, pl. 776/2a, 2b as *saraya* ♀.

B.M. 4 ♂ 1 ♀ Nilgiris. 1 ♀ Coorg. 1 ♀ Jabalpur, Centr. Prov. 1 ♀ Orissa.

(c). Only the *erosula* form, varying from plain dark brown to the lighter *saraya* form, exactly resembling the *agama* DSF form which flies with it. Unh yellowish brown with narrow dark spottings as in *lanka*, and more or less frosted over, presenting a striated appearance. ♂ F 16–17 mm.

Sub-sp. **yerburyi** nov: ♂ "Fateh Khan's bungalow, Kootur, Chittar Pahar, near Rawalpindi, Punjab": 3,000 ft.: 24 Ap. 1886: Yerbury: type B.M.; fig Elwes & Edwards 1897, pl. 18/20 ♂ and genitalia, pl. 23/21, 21a, as *saraya*.

B.M. 6 ♂ type loc. 1 ♂ Behar, Jamalpur. 1 ♀ Dehra Dun. 1 ♂ Nepal.

(d). With two very different seasonal forms as in *agama agama*. ♂ F 14–20 mm.

Normal form (DSF *alida*). Above brown, browner than the *agama* form (*erosula*), which flies with it in N. Burma.

Unh brown, much frosted over and the markings faint: the paler *saraya* form does not seem to occur.

Wet season form (*elwesii*). Exactly like a small edition of the typical form (WSF) of *agama*, differing as indicated in the description thereof.

Sub-sp. **alida** De Nicéville 1891: ♂ (DSF) Tilin Yaw, N. Burma: figured. Of the figures in Lep Ind, pl. 776/1, the ♂ seems to represent *alida* correctly, but the ♀ is more like the *erosula* form of *agama*. Fig Kershaw 1907 pl. 14/1 g from Hong Kong.

Synonyms. *elwesii* Watson 1897: ♂ (WSF) Bernardmyo: type B.M. Fig Elwes 1892, pl. 43/2 as *syrichthus* var.; Kershaw 1907, pl. 14/2 ♂ from Hong Kong, as *syrichthus*; Lep Ind, pl. 776/3, 3a, 3b as *syrichthus* DSF.

parvipunctata Mabille & Boullet 1917: ♂ (WSF) Cochin-China.

B.M. DSF (*alida*) 1 ♂ Kalewa, Chindwin. 1 ♂ "Lower Burma". 1 ♀ "Thibet". 1 ♂ 1 ♀ No loc. (believed to be Hong Kong).

WSF (*elwesii*). 2 ♂ Manipur. 2 ♂ 1 ♀ Chin Hills. 1 ♂ Bhamo. 5 ♂ Ruby Mines. 5 ♂ N. Shan St. 1 ♂ Pen Siam. 1 ♂ Tonkin. 1 ♀ Hainan. 3 ♂ Kiang Si. 1 ♀ Kwang Si. 2 ♂ Hong Kong.

D.1. ERYNNIS Schrank 1801: type *tages* Linnaeus: fixed by Scudder 1872.

Synonyms. *Thymele* Fabricius 1807: type *tages* Linnaeus: fixed by Westwood 1840.

Astycus Hübner 1823: type *tages* Linnaeus: fixed by Hemming 1933.

Thanaos Boisduval 1834: type *tages* Linnaeus: fixed by Blanchard 1840.

Hallia Tutt 1906: type *marloyi* Boisduval: fixed by author: homonym by Edwards 1850.

1a (3a). ♂ with a costal fold. Unh, and usually uph, with discal and terminal spots.

1 (2). Hindwing spots yellow and conspicuous.

montanus. 3 sub-species.

(a). Large, ♂ F 18–20 mm. Upf post-discal dark band broad and irregular. Unf discal and post-discal bands of yellow spots very irregular. ♀ upf with a conspicuous whitish area beyond mid costa. Uncus seen ventrally with a broad process projecting on either side about the middle, like wings.

Sub-sp. **montanus** Bremer 1861: ♂ Amur. Fig Bremer 1868; Pryer; Seitz I; genitalia fig by Elwes & Edwards.

Synonym. *rusticanus* Butler 1870: ♀ Japan: type B.M.

B.M. 33 ♂ 31 ♀ Japan. 1 ♂ Tsu Shima Is. 1 ♀ Korea. 9 ♂ 2 ♀ Askold. 9 ♂ 3 ♀ Amur. 2 ♂ 1 ♀ Manchuria. 2 ♂ 2 ♀ Vladivostock. 3 ♂ 2 ♀ Shansi. 1 ♂ S. Shensi. 1 ♂ Shantung. 3 ♂ Chekiang. 6 ♂ 1 ♀ Kiang Su. 4 ♂ 6 ♀ Hupeh. 1 ♂ 1 ♀ Snowy Valley. 1 ♂ Leon Fang. 1 ♂ Hunan.

(*b*). Smaller, ♂ F 16–17 mm. and darker. Upf post-discal band regular and yellow centred. Unf discal and post-discal bands of yellow spots parallel and regular. Uncus without the process described for *montanus*.

Sub-sp. **nigrescens** Leech 1894: ♂ Wa Ssu Kow: type B.M.: figured. Fig Seitz I: genitalia fig by Elwes & Edwards as *leechii*.

Synonym. *leechii* Elwes & Edwards 1897: to replace *nigrescens*.

B.M. 75 ♂ 2 ♀ Ta Tsien Lou. 6 ♂ Tchang Kou. 4 ♂ Wa Ssu Kow. 1 ♂ Siao Lou. 1 ♂ W. Szechwan. 6 ♂ Thibet (Batang, Qua Se, Maenia). 3 ♂ 2 ♀ Yunnan (Li-kiang and A Tun Tse).

(c). Size and appearance of *montanus*: marking and genitalia of *nigrescens*, except that the uncus is compressed and the clasps differ slightly.

Sub-sp. **monta** nov: ♂ Tse Kou, Yunnan: type B.M.

B.M. 7 ♂ Yunnan (Tse Kou and Ta Pin Tse).

2 (1). Hindwing spots whitish and very small. ♂ F 15–16 mm.

tages. 4 sub-species.

(a). Dark brown: upf frosted over with white scales: uph discal dots very faint. Exactly like *pelias*, except for the costal fold and the terminal white dots on both wings.

Sub-sp. **cervantes** Graslin 1836: ♂ Andalusia: figured. Fig Seitz I.

B.M. 39 ♂ 9 ♀ Spain (Andalusia, Grenada, Valladolid, Sierra Sagura).

(b). Brown: upf only with white scaling on the pale bands, which contrast well with the alternating dark bands: uph discal spots often well marked.

Sub-sp. **tages** Linnaeus 1758: Europe. Fig Esper 1777; Seitz I.

Synonym. *morio* Scopoli 1763. *geryon* Rottenberg 1775: Europe.

Varieties. *clarus* Caradja 1895. *isabellae* Lambillion 1905. *alcoides*, *approximata*, *brunnea-alcoides*, *brunnea-tranversa*, *brunnea-variegata*, *brunnea-unicolor*, *fulva*, *suffusa-alcoides*, *suffusa-transversa*, *suffusa-variegata*, *transversa*, *variegata* Tutt 1906. *minima* Lambillion 1907. *coelestina* Stauder 1915. *polioides* Cabeau 1920. *subclara* Verity 1921. *postice-privata* Stauder 1924. *elbursina* Bytinski-Sulz & Brandt 1937.

B.M. 27 ♂ 17 ♀ Britain. 112 ♂ 38 ♀ France. 21 ♂ 14 ♀ Switzerland. 1 ♂ Belgium. 36 ♂ 17 ♀ Germany, Austria and Hungary. 30 ♂ 1 ♀ Italy. 6 ♂ 3 ♀ Balkans. 1 ♂ S. Kurdistan. 2 ♂ Altai. 6 ♂ Trans-Baikal. 4 ♂ 3 ♀ Fort Naryn, E. Turkestan. 3 ♂ Siao Lou, W. Szechwan.

(c). As *tages*, but markings more or less obsolete.

Sub-sp. **unicolor** Freyer 1852: ♂ Asia Minor: figured. Fig Seitz I.

B.M. 34 ♂ 9 ♀ Greece. 6 ♂ Turkey. 22 ♂ 3 ♀ Asia Minor. 12 ♂ 1 ♀ Syria.

(d). Dark brown, with all markings very prominent. Genitalia slightly different.

Sub-sp. **popoviana** Nordman 1851: North China: figured.

Synonym. *sinina* Groum Grshmaïlo 1891: ♂ Amdo.

B.M. 9 ♂ 2 ♀ N. Thibet (Amdo, Sining). 4 ♂ 1 ♀ Chili (Peking, Nankow Pass). 3 ♂ 1 ♀ Shan Si. 22 ♂ 3 ♀ Shen Si. 7 ♂ 7 ♀ Shantung.

3a (1a). ♂ without costal fold. Uph and unh generally unmarked. Uncus dorsally winged as in *montanus*.

3 (4). Uncus with the lip projecting inwards much smaller than the tip. Lower end of cuiller of left clasp produced, as in *tages*. Upf frosted with white hairs and scales. ♂ F 16 mm.

pelias. 2 sub-species.

(a). Paler: uph light brown.

Sub-sp. **erebus** Groum Grshmaïlo 1891: ♂ Amdo: type B.M.

B.M. 18 ♂ 5 ♀ N. Thibet (Amdo, Nian Shan).

(b). Always darker.

Sub-sp. **pelias** Leech 1891: ♂ Wa Ssu Kow: type B.M. Fig Leech 1894 and Seitz I.

B.M. 56 ♂ 20 ♀ W. Szechwan (Ta Tsien Lou area). 29 ♂ 8 ♀ E. Thibet (Batang, Maenia, Yaregong). 4 ♂ 1 ♀ Yunnan (Li-kiang).

A ♂ from Ta Tsien Lou has a costal fold and well-developed markings uph and unh: otherwise as *pelias*. The genitalia also seem intermediate between *pelias* and *tages*.

4 (3). Uncus with the lip projecting inwards very large, larger than the tip. Lower end of cuiller of left clasp not produced.

marloyi. 3 sub-species.

(a). Left clasp long and tapered and inner face of cuiller straight and serrate. Upf no white scaling except about apex and outer half of costa: the black bands conspicuous, particularly the inner one. ♂ F 16 mm.

Sub-sp. **marloyi** Boisduval 1832: ♂ Greece: type B.M. Fig Lep Ind and Seitz I.

Synonyms. *sericea* Freyer 1838: Europe: figured. Fig Herrich-Schäffer 1846.

rustan Kollar 1850: Europe.

B.M. 34 ♂ 14 ♀ Greece. 6 ♂ 3 ♀ Turkey. 14 ♂ 7 ♀ Asia Minor. 13 ♂ 5 ♀ Syria. 2 ♂ N. Kurdistan. 7 ♂ 2 ♀ Persia (Shahrud, Shiraz, Harir, Karind).

(b). Left clasp short and broad-ended, not tapered. Small, ♂ F 13 mm. Upf scaled all over with whitish scales, which more or less obscure the dark bands. When fresh-looking entirely different from *marloyi*.

Sub-sp. **max** nov: ♂ Khojak, Baluchistan: April 1931: W. H. Evans: type B.M.

B.M. 17 ♂ 12 ♀ Baluchistan, Pishin Valley (Quetta to Chaman and Zhob watershed).

(c). Left clasp tapered as in *marloyi*, but inwardly concave. A dark form with the dark bands not nearly as conspicuous as in *marloyi*. ♂ F 15 mm.

Sub-sp. **pathan** nov: ♂ Chitral, Utzun Valley: May 1901: G. A. Leslie & W. H. Evans: type B.M. Fig Evans 1927 and 1932 as *marloyi*.
B.M. 2 ♂ Shingarh, near Fort Sandeman, Zhob Valley. 1 ♂ Razmak, N.W.F. Province, India. 12 ♂ 4 ♀ Chitral. 3 ♂ Bashahr, N.W. Himalayas.

D.2. GOMALIA Moore 1879: type *elma* Trimen: fixed by author as *albofasciata* Moore, which is a sub-species of *elma*.

Upf marbled dark green and brown. Uph and unh with a white central band. ♂ F 11 mm.

elma. 2 sub-species, one of which is African.
Paler and with more rounded wings than the African *elma*.

Sub-sp. **albofasciata** Moore 1879: ♂ Ceylon. Fig Lep Ceylon; Lep Ind; Seitz.
Synonym. *litoralis* Swinhoe 1884: ♂ Karachi: type B.M. figured.
B.M. 16 ♂ 6 ♀ Arabia (Aden, Lahej). 3 ♀ Baluchistan. 2 ♂ Kulu. 1 ♀ Karachi. 50 ♂ 32 ♀ S. India to Poona. 2 ♂ Ceylon.

D.3. CARCHARODUS Hübner 1819: type *alceae* Esper. Fixed by Plötz 1879.
Synonyms. *Spilothyrus* Duponchel 1885: type *alceae* Esper. Fixed by Watson 1893.
Reverdinus Ragusa 1919: type *floccifera* Zeller: fixed by Bang-Haas 1926 as *altheae* Hübner (nec Esper), for which the oldest name is *floccifera*.
Lavatheria Verity 1940: type *lavatherae* Esper: fixed by author.

1 (2a). Upf bar defining cell end absent: central hyaline spots very small. Aedeagus very broad. ♂ unf no tuft. Food plant Malvaceae.

alceae. 6 sub-species, with similar genitalia.
Generally with 3 well-marked seasonal forms. Spring brood darkest, ♂ F 13–14 mm.: above, more densely clothed with white hairs and scales, presenting a frosted

appearance with a violet flush: unh very dark and frosted with white scaling, markings small. Summer brood largest, ♂ F 15–16 mm.: paler, markings as in spring form. Autumn brood, palest and smallest, ♂ F 11½–12½ mm.: markings more conspicuous and more sharply defined.

(a). Dark with inconspicuous markings.

Sub-sp. **alceae** Esper 1780: ♀ Germany: figured.

Synonyms. *malvarum* Hoffmansegg 1804. *australis* and *nostras* Zeller 1847 (Sicily). *gemina* Lederer 1852 (for Hübner's figs 450–1). *aestiva* Hormuzaki 1897. *pre-australis*, *magna-australis*, *grisea-fulva* Verity 1924 (3 Italian broods). *fulvo-carens* Verity 1925. *clara-australis*, *clara-minima* Verity 1937. *exigua* Verity 1940.

B.M. 2 ♂ 3 ♀ Spain. 54 ♂ 25 ♀ France. 2 ♂ 1 ♀ Belgium. 2 ♂ 1 ♀ Switzerland. 28 ♂ 26 ♀ Italy. 14 ♂ 6 ♀ Sicily. 11 ♂ 9 ♀ Germany and Austria. 7 ♂ 6 ♀ Hungary. 2 ♂ 3 ♀ Balkans. 50 ♂ 32 ♀ Greece. 5 ♂ 6 ♀ S. Russia (Sarepta). 10 ♂ 3 ♀ Corsica. 5 ♂ 2 ♀ Crete. 19 ♂ 14 ♀ Cyprus. 67 ♂ 31 ♀ Turkey–Asia Minor. 37 ♂ 18 ♀ Syria. 15 ♂ 4 ♀ Palestine. 14 ♂ 3 ♀ Samarkand and Bokhara.

(b). Paler, particularly the summer brood, which may be pale yellowish brown in Irak.

Sub-sp. **insolatrix** Le Cerf 1913: Irak.

B.M. 27 ♂ 26 ♀ Irak. 26 ♂ 14 ♀ Persia. 17 ♂ 1 ♀ Afghanistan (S. of Kabul).

(c). Unh the markings much more sharply defined. The summer form is more variegated and has a violet flush above, when fresh. Paler than *alceae*, more olive green than brown, above.

Sub-sp. **swinhoei** Watson 1893: ♂ Quetta: type B.M. Fig Lep Ind.

B.M. 42 ♂ 28 ♀ Baluchistan.

(d). Uph and unh markings sharply defined, particularly in the spring form. As dark as *alceae*. Less difference between the seasonal forms.

Sub-sp. **gooraisa** nov: ♂ Goorais, Kashmir, spring form, J. H. Leech: type B.M. Fig Lep Ind as *alceae*.

B.M. 8 ♂ 1 ♀ Afghanistan, Paghman Mts. 24 ♂ 11 ♀ Chitral. 23 ♂ 5 ♀ Kashmir. 27 ♂ 13 ♀ Murree Hills. 1 ♂ 1 ♀ Simla. 1 ♂ Mussoorie.

(e). Above, dark areas reduced, particularly before termen upf: ground colour reddish purple-brown of a peculiar shade. Unh reddish brown, usually with broad pale borders. Less difference between the seasonal forms. Smaller, ♂ F 11–14 mm.

Sub-sp. **tripolina** Verity 1925: ♂ Tripoli.

B.M. 2 ♂ Portugal. 6 ♂ 3 ♀ Spain. 115 ♂ 47 ♀ Morocco and Algeria. 3 ♂ 4 ♀ Tunis. 14 ♂ 2 ♀ Tripoli.

(f). Above, with sharply defined spots, resembling *gooraisa*. Unh like *tripolina*. ♂ F 12 mm. Spring and autumn broods alike. Probably too hot for a summer brood.

Sub-sp. **wissmanni** Warnecke 1934: ♂ S.W. Arabia.

B.M. 23 ♂ 11 ♀ Yemen (Feb.–Oct.).

2a (1). Upf with narrow pale bar defining the end of the cell: central hyaline spots conspicuous. Aedeagus very slender. Food plant Labiatae.

2 (3a). ♂ unf no brush. Upf spot in space 2 usually large, overlapping the cell spot and spot in space 3. Unh the outer spot in space 7 elongate and in direct continuation of the discal band. ♂ F 16–17 mm. Single brooded. Food plant *Stachys*.

lavatherae. 3 sub-species.

(a). Differs only in having a rufous tinge, above.

Sub-sp. **interni-rufus** Rothschild 1914: ♂ Algeria: type B.M.

Synonyms. *rufescens* Oberthür 1914: ♀ Algeria: type B.M. Fig Oberthür 1911, figs 603–604 as *lavatherae*.

australissima Verity 1925: ♂ Algeria.

B.M. 19 ♂ Morocco. 10 ♂ 2 ♀ Algeria.

(b). Above, dark green, with pale areas conspicuously predominating. Unh white with faint greenish markings.

Sub-sp. **lavatherae** Esper 1780: S. France: figured. Fig Oberthür 1911, figs 601–602.

Synonyms. *australior* Verity 1919: ♂ Tuscany.

chlorotes Dannehl 1925: N. Italy.

B.M. 12 ♂ 2 ♀ Spain. 126 ♂ 25 ♀ Pyrenees to Hautes Alpes. 34 ♂ 4 ♀ Switzerland. 24 ♂ 21 ♀ Germany–Hungary. 32 ♂ 3 ♀ Italy.

(c). Typically as dark as *floccifera* above and unh, but grades to *lavatherae* which prevails in some areas.

Sub-sp. **tauricus** Reverdin 1915: ♂ Cilicia: figured.
B.M. 5 ♂ Bosnia. 7 ♂ 2 ♀ Greece. 2 ♂ Turkey. 9 ♂ 3 ♀ Asia Minor.

3a (2). ♂ unf with a dense brush towards base of dorsum. Upf spots in spaces 2, 3 and cell well separated. Unh the outer spot in space 7 not elongate and nearer the termen. Foodplant *Marrubium*.

In this group there are 5 types of clasp, the differences between which could only be regarded as sub-specific, but for the fact that at the W. end of the Mediterranean *boeticus* and *floccifera* fly together and are readily separable as species. At the E. end of the Mediterranean, *stauderi*, which replaces *boeticus* in N. Africa and might be regarded as conspecific therewith, flies with *orientalis* and is only separable by a genitalia examination. *floccifera*, *orientalis* and *dravira*, though differing in respect of the clasp form, do not overlap their flight areas and can reasonably be regarded as sub-species. Each species or sub-species appears to have several broods, the differences between which, as well as the numbers, depend on the locality and general ecological conditions. See Oberthür 1918.

3 (4a). Uph submarginal dark spots divided by pale veins of the same colour as the pale post-discal band and the pale veins extend to the discal white band. Cuiller half the width of the clasp: the end of the valva rounded, bulbous and spined throughout.

boeticus. 2 sub-species.

(a). Pale spots, above, of much the same size. Unh dark areas greenish, becoming reddish in later broods, which are paler above. ♂ F 14 mm.

Sub-sp. **boeticus** Rambur 1839 (plate): ♂ Andalusia: type B.M. Fig Oberthür 1911 and 1918; Reverdin 1913.
Synonyms. *marrubii* Rambur 1842 (text): name on plate changed in text.
rostagnoi Verity 1911. *fulvescens*, *fulva*, *grisea*, *viridescens*, *aegra* Verity 1925. *fonti* Sagarra 1930.
B.M. 38 ♂ 20 ♀ Spain. 4 ♂ Pyrenees. 1 ♂ Alpes Maritimes.

1 ♂ Digne. 3 ♂ 6 ♀ Var. 40 ♂ 10 ♀ Bouches du Rhône (May–Oct.). 1 ♂ Simplon. 1 ♂ Styria. 1 ♂ 1 ♀ Dalmatia. 1 ♂ "Asia Minor". 1 ♂ "Syria".

(b). Upf spot in space 2 and uph discal spot in spaces 4–5 much enlarged. Smaller. ♂ F 13 mm.

Sub-sp. **octodurensis** Oberthür 1911: ♂ Valais: type B.M.: figs 611, 612.

B.M. 11 ♂ 8 ♀ Valais (Oct.).

4a (3). Above, submarginal spots not conspicuously divided by pale veins.

4 (5). Cuiller not > ½ width of clasp: aedeagus spined. Unh greenish in earlier broods, reddish in later ones.

stauderi. 5 sub-species with 2 forms of clasp.

(a). End of valva somewhat enlarged and spined: transitional from *stauderi* to *boeticus*. Separable, rather as in *alceae*, into a Spring form, F 14 mm.: Summer, F 16 mm.: Autumn, ♂ F 12 mm.

Sub-sp. **romei** Rothschild 1933: ♂ Morocco: type B.M.

B.M. 25 ♂ 16 ♀ Morocco (March–July).

(b). End of valva not enlarged and only spined on inner edge. Smaller, ♂ 12–14 mm. and more uniform in respect of size.

Sub-sp. **stauderi** Reverdin 1913: ♂ El Kantara: figured. Fig Oberthür 1911, fig 608 ♂ as *boeticus*.

Synonyms. *obscurata*, *fulvissima* Verity 1926.

B.M. 1 ♀ Mauretania. 42 ♂ 15 ♀ Algeria (June–Oct.). 2 ♂ Tunis.

(c). Darker green, above. Uph discal white spot in spaces 4–5 large, but lower part of discal band faint. Unh whiter, greenish markings fainter.

Sub-sp. **barcaeus** Turati 1924: ♂ Cyrenaica.

B.M. 3 ♂ Cyrenaica (April).

(d). Palest form. Uph discal and submarginal bands conspicuous. Unh very white, with faint reddish to greenish markings. ♂ F 14 mm.

Sub-sp. **ramses** Reverdin 1914: ♂ Maryut, Egypt: type B.M.: figured.

B.M. 8 ♂ type loc. (April–May).

(e). A variable sub-species, of which there seem to be 3 forms. First, large, ♂ F 16 mm., and dark above: unh ochreous green, to reddish brown. Second, very pale above, like *ramses*, ♂ F 14 mm. Third, small, autumn form, ♂ 12½ mm.; unh very white with greenish markings.

Sub-sp. **ambigua** Verity 1925: ♀ Syria: fig Oberthür 1911, fig 607: type B.M.

B.M. 3 ♂ 2 ♀ Asia Minor (Tokat, Cilician Taurus). 4 ♂ 3 ♀ Syria (Beirut). 4 ♂ Palestine (Galilee, Beersheba, Jerusalem). 4 ♂ 2 ♀ Sinai. 2 ♂ Persia (Harir, Shahrud).

5 (4). Generally larger and darker than *boeticus* and *stauderi*: flies at higher elevations.

floccifera. 3 sub-species, with differing clasps.

(a). Cuiller very wide, > ½ width of clasp. Aedeagus spined. End of valva somewhat enlarged, rounded and spined. Some specimens show an approach to *orientalis* in having a narrow cuiller. There are 2 forms. Firstly, large and dark, ♂ F 15–16 mm., often with a violet sheen, recalling the spring form of *alceae*: unh dark green, with a tendency to long white streaks before the termen: this is the *altheae* of Hübner = *gemina* Lederer and prevails from the Pyrenees to Italy. Secondly, smaller, ♂ 13–15 mm. F, paler and greener above: unh paler, the submarginal pale spots not continued to the termen as long streaks: this resembles *orientalis* and occurs infrequently in the South of France and Italy, becoming the prevalent form in Sicily.

Sub-sp. **floccifera** Zeller 1847: ♂ Sicily: type B.M. Fig Oberthür 1911, figs 613–616 as *altheae*.

Synonyms. *altheae* Hübner 1803: ♀ Germany: figured. Homonym by Esper 1783.

gemina Lederer 1852: to replace *altheae* (nec *malvae* Hübner, as erroneously stated in text).

australiformis, *fulvipinnulis* Verity 1919. *oberthüri* Verity 1919: ♂ Sicily: fig Oberthür 1911, Nos. 605, 606 ♂ ♀.

siccior, *post-altheae* Verity 1934.

imperator Hemming 1934: to replace *altheae* Hübner.

alchmyllae (Hübner ined.) Hemming 1936. *autumnalis* Verity 1940.

B.M. 1 ♂ 1 ♀ "Canaries". 1 ♂ "Andalusia". 50 ♂ 10 ♀ Pyrenees. 19 ♂ 4 ♀ Alpes Maritimes. 9 ♂ 5 ♀ France (Paris, Digne, Aude, Isère). 3 ♂ 3 ♀ Bouches du Rhône. 4 ♂ Var. 38 ♂ 7 ♀ Larches, Basses Alpes. 9 ♂ 2 ♀ No loc. 6 ♂ 2 ♀ Hautes Alpes. 6 ♂ 2 ♀ Savoie. 7 ♂ 1 ♀ Switzerland. 30 ♂ 8 ♀ Italy. 11 ♂ 3 ♀ Sicily. 4 ♂ 3 ♀ Austria. 9 ♂ 3 ♀ Hungary. 2 ♂ Bosnia. 4 ♂ 2 ♀ Bulgaria. 1 ♂ "Syria". 1 ♂ 1 ♀ Kasikoporan, S. Russia.

(b). Cuiller < ½ clasp. End of valva much expanded, heart shaped, inner part only spined. Aedeagus unspined. Similar in appearance to second form of *floccifera*, but there are 3 seasonal forms like *stauderi ambigua*: a large spring form, ♂ F 16 mm.; a much paler and better marked second form, ♂ F 14 mm., much more prevalent in the East: a small autumn form, ♂ 12–13 mm.

Sub-sp. **orientalis** Reverdin 1913: ♂ Morea: figured.

Synonyms. *centranatolica* Pfeiffer 1927: ♂ C. Anatolia.
aestatis Graves 1928: ♂ Constantinople: type B.M.
post-orientalis Verity 1928: ♂ Constantinople.
maccabaeus Hemming 1932: ♂ Trans-Jordan: figured.

B.M. 1 ♂ "Austria". 1 ♂ Montenegro. 1 ♂ 1 ♀ S. Russia. 16 ♂ 9 ♀ Greece. 9 ♂ 1 ♀ No loc. 56 ♂ 14 ♀ W. Asia Minor and Constantinople (April–Sept.). 8 ♂ Taurus. 9 ♂ 1 ♀ E. Asia Minor. 7 ♂ 1 ♀ Syria. 9 ♂ Palestine. 1 ♂ Trans-Jordan. 1 ♀ N. Kurdistan.

(c). Cuiller as in *orientalis*. Aedeagus unspined. End of valva greatly expanded, rounded and spined throughout. A more constant and generally better marked form. ♂ F 13–16 mm. Autumn specimens are smaller and better marked.

Sub-sp. **dravira** Moore 1874: ♂ Kashmir: type B.M. Fig Lep Ind.

Synonyms. *balucha* Evans 1932: ♂ Baluchistan: type B.M.
dentatus Alberti 1940: ♂ Badakshan.

B.M. 2 ♂ Paghman Mt., Afghanistan. 4 ♂ 6 ♀ Kandahar. 30 ♂ 16 ♀ Baluchistan (May–Sept.). 14 ♂ 2 ♀ Chitral. 10 ♂ 2 ♀ Kashmir.

D.4. SPIALIA Swinhoe 1913: type *galba* Fabricius: fixed by author.

Synonyms. *Powellia* Tutt 1906: type *sertorius* Hoffmansegg: fixed by author as *sao* Hübner, but Hübner had misidentified the insect which had been previously named *sao* by Bergstrasser and Hoffmansegg in consequence renamed-Hübner's species: homonym by Mask 1879.
Platygnathia Picard 1947: type *phlomidis* Herrich-Schäffer: fixed by author.

1a (3a). Unh discal band continuous with the outer spot in space 7, the inner spot being adjoined to the basal cell spot.
1 (2). Unh discal band straight and directed to the tornus. Upf basal cell spot absent. Uncus bifid. ♂ F 11 mm.
zebra. 2 sub-species, of which one is African with slightly different genitalia.
Sub-sp. **zebra** Butler 1888: ♂ Campbellpore: type B.M. Fig Lep Ind.
Synonym. *hellas* De Nicéville 1889: ♂ Campbellpore: figured.
B.M. 7 ♂ 1 ♀ Campbellpore, Punjab. 1 ♀ Aden.

2 (1). Unh discal band ending mid dorsum. Upf 3 cell spots. Uncus pointed, undivided. ♂ F 11–13 mm.
galba Fabricius 1793: Tranquebar. Fig Oberthür 1912; Lep. Ind.
Synonym. *superna* Moore 1865: ♂ Calcutta: type B.M.
B.M. 19 ♂ 12 ♀ Ceylon. 28 ♂ 34 ♀ S. India. 14 ♂ 3 ♀ Cutch. 5 ♂ 2 ♀ Sind. 2 ♂ 2 ♀ Ganjam. 5 ♂ 4 ♀ C. India. 17 ♂ 15 ♀ N.W. Himalayas (Kashmir–Kumaon). 12 ♂ 8 ♀ Bengal. 6 ♂ 3 ♀ Sikkim. 9 ♂ 6 ♀ Assam. 11 ♂ 6 ♀ Burma to S. Shan St.

3a (1a). Unh discal band broken or conjoined to the inner spot in space 7: the outer spot near termen.
3b (7). Upf bar or spot end cell conspicuous. The aedeagus peculiarly asymmetric and bent over at end.
3 (4a). Unh the inner spot in space 7 straddles the origin of vein 7 and is more or less conjoined to the central spot

of the discal band, the upper edge of which is extended into the cell to, or nearly to, the origin of vein 7. ♂ F 15 mm.

phlomidis Herrich-Schäffer 1845: ♂ Turkey, June: figured. Fig. Oberthür 1912.
Synonyms. *jason* (Boisduval MS) Oberthür 1912 = *phlomidis*. *eupator* Hemming 1932: ♂ Amasia: type B.M.
B.M. 1 ♂ Albania. 11 ♂ 2 ♀ Greece. 4 ♂ S. Russia, Caucasus. 7 ♂ Turkey. 28 ♂ 10 ♀ No loc. 1 ♂ 2 ♀ Brussa. 8 ♂ 3 ♀ Tokat. 13 ♂ 1 ♀ Amasia. 1 ♀ Taurus. 2 ♂ Armenia. 2 ♂ 1 ♀ Persia (Ordub, Shahrud, Hyrcania).

4a (3). Unh the inner spot in space 7 behind the origin of vein 7, widely separated from the central spot, the upper end of which does not usually extend into the cell.
4b (6). Upf discal spot in space 1b reaches across the space to vein 1.
4 (5). Aedeagus single, without a branch. Unh greenish. ♂ F 14 mm.

osthelderi. 2 sub-species with similar genitalia.
(a). Above markings reduced, particularly uph, where the discal spot in space 1c and the basal cell spot are absent usually. Unh almost all white with all the markings faint.
Sub-sp. **osthelderi** Pfeiffer 1932: ♂ Marash, Taurus: figured.
B.M. 2 ♂ 1 ♀ Syria (Marash, Akbes). 3 ♂ 3♀ Irak (Kurdistan, Dyala Riv.). 2 ♂ 1 ♀ 10 miles west of Kabul.
(b). Above and below with well-marked spots. Upf basal cell spot present, as also the cell spot uph.
Sub-sp. **gecko** nov: ♂ Hyrcania: type B.M.
B.M. 4 ♂ 3 ♀ Persia (Hyrcania, Shahrud). 1 ♀ Afghanistan, Reschke. 1 ♀ Susamyr Mts.

5 (4). Aedeagus with a smaller, but conspicuous, left branch. Unh yellow rather than greenish. Upf basal cell spot and uph cell spot usually absent.

geron. 2 sub-species.
(a). Larger, ♂ F 15 mm. Clasp form somewhat different.
Sub-sp. **struvei** Pungeler 1914: ♂ Barkul, E. Turkestan: figured. Fig Pfeiffer 1932.
B.M. 1 ♂ Persia (Ordub). 4 ♂ 2 ♀ Ferghana.

(b). Smaller, ♂ F 13 mm.

Sub-sp. **geron** Watson 1893: ♂ Baluchistan: type B.M. Fig Lep Ind.

B.M. 42 ♂ 19 ♀ Baluchistan (June, July).

6 (4b). Upf discal spot in space 1b not reaching vein 1. Wings more produced. Aedeagus without a left branch.

doris. 3 sub-species with similar genitalia.

(a). Unh very dark greenish brown, markings sharply defined, basal cell spot elongate. Upf basal cell spot elongate, no spots in spaces 4 and 5: outer discal spot in space 1b vestigial. ♂ F 12½ mm.

Sub-sp. **daphne** nov: ♂ High Atlas, Ziz Valley, 21st April: Miss Daphne Aubertin and R. E. Ellison: type B.M.

B.M. Only the type.

(b). Above with profuse and very broad markings: upf basal cell spot very small, but discal spot in space 1b large. ♂ F 12½ mm.

Sub-sp. **amenophis** Reverdin 1914: ♂ Heliopolis: figured.

B.M. 9 ♂ 4 ♀ Spring brood, Ap.–May. 4 ♂ 7 ♀ Autumn brood, Sept.–Oct., Cairo.

(c). Markings not profuse or broad: unh not so dark as *daphne*. ♂ F 9–11 mm.

Sub-sp. **doris** Walker 1870: ♀ Tajora, Red Sea: type B.M.

Synonym. *evanidus* Butler 1880: ♂ Hubb Riv., S. Baluchistan: type B.M.

adenensis Butler 1884: ♂ Aden: type B.M. Fig Oberthür 1912.

B.M. 1 ♀ Kordofan. 2 ♂ Somaliland. 2 ♂ 1 ♀ Sudan. 22 ♂ 16 ♀ Aden. 4 ♂ Perim. 14 ♂ 7 ♀ Arabia (Jedda, Hadramaut). 2 ♀ Yemen. 1 ♂ 1 ♀ S. Persia (Kerman, Ahwaz). 8 ♂ 2 ♀ Sind. 2 ♂ Punjab, Campbellpore. 1 ♂ Rajputana, Deesa.

7 (3b). Upf bar end cell faint or absent. Unh the central spot with its upper edge more or less prolonged towards the inner spot in space 7, as in *phlomidis*, but there is no connecting spot in space 6.

sertorius. 7 sub-species with similar genitalia.

(a). Unh the submarginal white spots modified, so that at the termen there are alternate long red and white streaks to the outer end of the cilia. First brood dark, ♂ F 11 mm. Second brood paler, more spotted above, but unh the red and white markings less contrasted. ♂ F 10 mm.

Sub-sp. **ali** Oberthür 1881: ♂ Lambèse: type B.M.: figured.

Synonym. *therapnoides* Oberthür 1910: ♂ Sebdou: type B.M.: figured. The first and second broods both figured Oberthür 1912.

B.M. 1 ♀ Tunis. 102 ♂ 70 ♀ Algeria. 32 ♂ 17 ♀ Morocco.

(b). Very like second brood of *ali*. Above spots yellow. ♂ F 10 mm.

Sub-sp. **therapne** Rambur 1832: ♂ Corsica: type B.M.: figured. Fig Oberthür 1912.

B.M. 47 ♂ 17 ♀ Corsica. 1 ♂ 1 ♀ Sardinia.

(c). Unh submarginal markings normal: ground colour red of various shades. ♂ 1st brood F 11–12 mm. ♂ 2nd brood F 10 mm.

Sub-sp. **sertorius** Hoffmansegg 1804: ♀ fig by Hübner 1805 as *sao*, but not *sao* Bergstrasser. Fig Oberthür 1912 as *sao*; Warren 1926.

Synonymy. *eucrate* Ochsenheimer 1805. *minor* Rebel 1909. *kempny* Schawerda 1919. *gracilis* Verity 1919. *parvula*, *subgracilis* Verity 1921. *subtus-brunnea* Reverdin 1922. *guardarramensis* Warren 1925. *gavarniensis* Warren 1926. *alioides* Verity 1926. *infra-aurata*, *-lutea*, *-detersa* Verity 1929. *aestiva* Querci 1929. *hibiscae* Hemming 1936. *post-tesselloides* Verity 1938. *medio-albodetersa*, *retrograda* Verity 1940.

B.M. 24 ♂ 6 ♀ Portugal. 130 ♂ 42 ♀ Spain. 218 ♂ 128 ♀ France. 1 ♂ Belgium. 30 ♂ 14 ♀ Switzerland. 3 ♂ 1 ♀ Germany. 28 ♂ 22 ♀ Austria. 2 ♂ Hungary. 86 ♂ 63 ♀ Italy.

(d). Unh greenish. Sizes of broods as for *sertorius*.

Sub-sp. **orbifer** Hübner 1823: ? loc.: figured. Fig Oberthür 1912.

Synonyms. *tesselloides* Herrich-Schäffer 1845: Sicily, where varieties, particularly of ♀, like *sertorius*, are frequent. *minor* Rebel 1909.

B.M. 10 ♂ 6 ♀ Sicily. 4 ♂ 6 ♀ Dalmatia. 7 ♂ Croatia.

1 ♂ 1 ♀ Bohemia. 18 ♂ 15 ♀ Hungary. 9 ♂ 2 ♀ Bosnia. 7 ♂ 5 ♀ Bulgaria. 3 ♂ 2 ♀ Crimea. 41 ♂ 41 ♀ Greece. 44 ♂ 14 ♀ Turkey. 52 ♂ 13 ♀ Asia Minor (Tokat, Brussa, Taurus, Kedos, Amasia).

(e). Above markings more conspicuous, particularly the submarginal spots and the cilia chequering. Unh as *orbifer*. Larger, ♂ 1st brood F 14 mm.: 2nd brood 11 mm.

Sub-sp. **hilaris** Staudinger 1901: ♂ Mardin. Fig. Oberthür 1912.

Synonym. *secunda* Graves 1925: ♂ Syria.

B.M. 64 ♂ 32 ♀ Syria. 10 ♂ 2 ♀ Palestine. 7 ♂ N.W. Persia (Kermanshah).

(f). ♂ F 14 mm. Above, much darker and submarginal markings faint or absent. Unh greenish. Single-brooded.

Sub-sp. **lugens** Staudinger 1886: ♂ Ferghana. Fig Oberthür 1912.

Synonym. *murasaki* Sugitani 1936: ♂ Corea: figured ♂ ♀.

B.M. 3 ♂ 1 ♀ Trans-Caspian. 6 ♂ 5 ♀ Samarkand. 24 ♂ 4 ♀ Naryn. 2 ♂ Bokhara. 3 ♂ 1 ♀ Thian Shan. 3 ♂ 2 ♀ Ferghana. 3 ♂ Altai. 1 ♂ 1 ♀ N. Thibet, Sining. 1 ♂ Alexander Mts. 1 ♂ Amur. 4 ♂ Shansi. 5 ♂ 4 ♀ S. Shensi.

(g). Similar to *lugens*, but unh red to reddish brown.

Sub-sp. **carnea** Reverdin 1927: ♂ Paghman Mts.

B.M. 3 ♂ Paghman Mts., Afghanistan. 12 ♂ 3 ♀ Chitral. 3 ♂ Gilgit. 16 ♂ 6 ♀ Baluchistan, 8,000 ft.

D.5. MUSCHAMPIA Tutt 1906: type *proto* Ochsenheimer: fixed by author.

Synonyms. *Sloperia* Tutt 1906: type *poggei* Lederer: fixed by author.

Favria Tutt 1906: type *cribrellum* Eversman: fixed by author.

Ramburia Warren 1926: type *antonia* Speyer: homonym by Robineau-Desvoidy 1851.

Reverdinia Warren 1926: type *staudingeri* Speyer: fixed by author.

Tuttia Warren 1926: type *tessellum* Hübner: fixed by author.

Warreno-Hesperia Strand 1926: to replace *Ramburia*.

1 (2a). Unh white with black-edged orange bands. ♂ upf no costal fold. Antennal club slightly arcuate. Nudum 11: > ½ length of club.

antonia. 2 sub-species.

(a). Small, ♂ F 14–17 mm.

Sub-sp. **antonia** Speyer 1879: ♂ Saisan. Fig in Seitz.
B.M. 1 ♂ Saissan. 5 ♂ Trans-Alai. 1 ♂ Amdo. 4 ♂ Altai. 14 ♂ 1 ♀ "Siberia".

(b). Large, ♂ F 19–20 mm.

Sub-sp. **gigantea** Staudinger 1886: ♂ Ferghana. Fig Oberthür 1921.
B.M. 65 ♂ 43 ♀ Turkestan (Alexander Mts., Naryn, Alai, Namangan).

2a (1). Unh no black edging to the markings.
2b (7a). Nudum < ½ length of club, which is not bent.
2c (4a). Unh in space 7, the inner spot is in direct continuation of the discal band. ♂ upf with costal fold. Nudum 8.
2 (3). ♂ ♀ mid tibiae spined. ♂ F 15 mm.

cribrellum. 2 sub-species.

(a). Paler, due to greater intensity of clothing of white hairs.

Sub-sp. **cribrellum** Eversman 1841: ♂ S. Russia. Fig Oberthür 1916; Seitz I. Genitalia fig Warren 1926: Reverdin 1916 is incorrect.
Synonyms. *tesselloides* Warren 1926: ♂ Sarepta: figured.
B.M. 39 ♂ 29 ♀ S. Russia.

(b). Darker above and below.

Sub-sp. **obscurior** Staudinger 1892: ♂ Kentei.
Synonyms. *hybrida* Mabille 1909: ♂ Kentei.
incompleta Warren 1926: ♂ Altai.
B.M. 11 ♂ 2 ♀ Altai. 4 ♂ Amdo. 7 ♂ 2 ♀ Mongolia. 3 ♂ Chingan. 20 ♂ 2 ♀ Trans-Baikal (Chita, Apfelgebirge). 3 ♂ Amur.

3 (2). ♂ ♀ mid tibiae unspined, as in rest of genus.

tessellum. 9 sub-species.

(a). In the first 4 sub-species the top of the cuiller is sloped and rounded: while in the first two the cuiller appears wider than in the next two. Wings broad. ♂ F 17–18 mm. Unh dark areas greenish, well marked.

Sub-sp. **tessellum** Hübner 1802: ♂ S. Russia: figured. Fig Rambur 1839; Seitz I (pl. 85 e f).

Synonyms. *hibisci* Böber 1812: Russia.

mazzola Ochsenheimer 1816: as *tessellum*.

B.M. 7 ♂ 2 ♀ Greece (Mt. Olympus, Struma V.). 5 ♂ 3 ♀ Caucasus. 1 ♂ 5 ♀ Asia Minor (Brussa). 1 ♂ ? loc., Mus Rambur, original of his figure.

(b). Similar, but unh white with faint markings.

Sub-sp. **nomas** Lederer 1855: ♂ Beyrout: figured. Fig Oberthür 1912.

B.M. 4 ♂ 1 ♀ Asia Minor. 22 ♂ 11 ♀ Syria. 5 ♂ 1 ♀ Palestine. 9 ♂ 1 ♀ Malatia.

(c). Wings narrower in this and the next sub-species. Above, densely clothed white hairs. Unh dark areas yellower. ♂ F 15–17 mm.

Sub-sp. **cribrelloides** Warren 1926: ♂ Sarepta: figured. Fig Oberthür 1912, ♀ fig 1250, as *tessellum*.

B.M. 22 ♂ 8 ♀ Sarepta. 23 ♂ 17 ♀ "S. Russia" or no loc. 3 ♂ 1 ♀ ? loc., Mus. Rambur. 1 ♂ "Palestine". 9 ♂ Uralsk. 1 ♂ 1 ♀ Semi-palatinsk. 1 ♂ Turgai.

(d). Darker. Unh dark greenish areas.

Sub-sp. **nigricans** Mabille 1909: ♀ Juldus.

B.M. 1 ♂ 1 ♀ Thian Shan. 1 ♂ 3 ♀ Irkutsk. 15 ♂ 6 ♀ Altai. 1 ♂ 1 ♀ Chengai Mts.

(e). Wings broad, as in *tessellum*, in this and remaining sub-species. Also top of cuiller flat or concave and back more angled than rounded. Small, ♂ F 14 mm. Above and unh markings conspicuous as in *nigricans*.

Sub-sp. **tersa** nov: ♂ Ordub: coll Christoph. Type B.M.

B.M. 1 ♂ Irak, Kurdistan. 4 ♂ Persia (Ordub, Fars).

(f). ♂ F 18 mm. Above, like *tessellum*, but paler and markings rather reduced. Unh dull green of a peculiar shade extending to the termen, obscuring the white submarginal markings.

Sub-sp. **dilutior** Rühl 1895: ♂ Mongolia. Fig Oberthür 1912, fig 1248 as *nobilis* ♂, fig 1250 as *dilutior* ♀.

Synonyms. *fucata* Mabille 1909: ♂ Tian Shan.

minor Mabille 1909: ♂ Amur.

B.M. 26 ♂ 9 ♀ Naryn, Semirechinsk. 1 ♂ 1 ♀ Thian Shan. 1 ♂ Trans-Alai. 1 ♂ Alai. 1 ♂ Margilan. 13 ♂ 7 ♀ Bossago River. 2 ♂ Osh. 1 ♂ Alexander Mts. 2 ♂ 1 ♀ Tura. 4 ♂ "Amur" (Crowley Bequest: perhaps the basis of Mabille's *minor*).

(g). Similar, ♂ F 16½ mm. Above conspicuously paler and all the submarginal markings absent.

Sub-sp. **nobilis** Staudinger 1882: ♂ Samarkand. Fig Groum Grshmaïlo 1890; Oberthür 1912, fig 1249 ♀.

B.M. 10 ♂ 5 ♀ Samarkand. 2 ♂ 1 ♀ "Tura".

(h). ♂ F 17 mm. Above and below like *tessellum*. Cuiller as in *dilutior*, but the angle between tip and back is acute.

Sub-sp. **protheon** Rambur 1858: ♂ "S. Russia": type B.M. Synonym. *kuenlunus* Groum Grshmaïlo 1893: ♂ Trans-Alai: type B.M. Rambur obtained his specimen from Lederer, who doubtless got it from Kindeman, a central Asian traveller. The genitalia leave no doubt as to its identity with *kuenlunus*.

B.M. 1 ♂ type. 1 ♂ Kukunor. 4 ♂ Amdo.

(i). Very dark and very large. ♂ F 20–22 mm.

Sub-sp. **gigas** Bremer 1864: ♂ Manchuria: figured. Fig Oberthür 1912: genitalia by Reverdin 1916.

B.M. 13 ♂ Manchuria. 17 ♂ 9 ♀ Amut. 3 ♂ 3 ♀ Vladivostok. 2 ♀ Pekin. 2 ♀ Shensi. 1 ♂ "Mongolia".

4a (2c). Unh in space 7, the inner spot is near the base, adjoining the cell spot: central spot in continuation of the discal band: outer spot absent or at termen. Cuiller with an inward branch. ♂ upf costal fold conspicuous. Nudum 8–12: club straight.

4 (5a). Inward branch of cuiller nearer base than tip of clasp. Upf with a straight row of 4 apical spots. Unh white, with the greenish markings faint.

leuzeae Oberthür 1881: ♂ Massara: type B.M. Fig Oberthür 1912.

B.M. 26 ♂ 7 ♀ Algeria (Teniet-el-Haad, Blida, Sebdou, Algiers).

5a (4). Inward branch of cuiller nearer tip than base of clasp. Upf with only 3 apical spots. Unh varying from green to red.

5 (6). Distal end of valva with the thickened edge much enlarged. Cilia broad: the chequering pointed and extending to the outer edge. Upf spot in space 2 nearer the cell spot than to the spot in space 3.

mohammed. 2 sub-species.

(a). Unf apex and unh termen broadly whitened. Unh dark areas greenish or reddish. ♂ F 16 mm.

Sub-sp. **mohammed** Oberthür 1887: ♂ Lambèse: type B.M. Fig Oberthür 1888 (reddish unh).

Synonym. *ahmed* Oberthür 1912: ♂ Lambèse: type B.M.: figured (unh green).

B.M. 8 ♂ 2 ♀ Lambèse (June).

(b). Unf apex and unh termen not whitened. The spring form (*caid*) is small, ♂ F 14 mm. and unh dark greenish brown. The summer form is larger, ♂ F 16 mm. and unh red to reddish brown with red veins.

Sub-sp. **caid** Le Cerf 1923: ♂ Oulmes (1st April). Summer form fig as *mohammed* by Oberthür 1912.

B.M. Spring form 3 ♂ Morocco (Mazagan, Feb., Azrou, May). 1 ♂ Algeria (Harcha, March). Summer form 2 ♂ 3 ♀ Algeria (Teniet-el-Haad, Constantine). 39 ♂ 20 ♀ Azrou (July–Sept.). 37 ♂ 16 ♀ Aflou, Oran (Sept.–Oct.).

6 (5). Distal end of valva with the thickened edge of the same width throughout. Cilia narrower with the chequering reaching broadly to the middle, but not extending to the outer edge. Upf spot in space 2 usually central between the cell spot and the spot in space 3.

proto. 6 sub-species.

(a). Above, more extensively spotted than any form other than *lycaonius*. Unh of a pale reddish shade, markings narrow and submarginal streaks vestigial. ♂ F 14 mm.

Sub-sp. **lambesa** nov: ♂ Lambèse, July: H. Powell.

8 ♂ 8 ♀ Lambèse (July).

(b). Above, the submarginal spots fainter: uph discal markings conspicuous, but irregular. Early (June–July) specimens are larger, ♂ F 16 mm., greener above and unh usually greenish. Later (July–Oct.) specimens are smaller, ♂ F 14 mm., browner above and unh reddish brown. Moroccan specimens are larger than Algerian.

Sub-sp. **fulvosatura** Verity 1925: ♀ Sebdou: type B.M.: from fig by Oberthür 1912, No. 1266 (late form). Early form fig Oberthür 1922, figs 4435–6, 4441–2 as *proto* and late form ♂ Oberthür 1912, fig 1248, as *staudingeri*.

Synonyms. *gigas* Verity 1925: homonym by Bremer 1864. *macro-proto* Verity 1928: ♀ Azrou: type B.M.: Oberthür fig 4441.

B.M. 28 ♂ 24 ♀ Azrou (June–Sept.). 1 ♂ 1 ♀ Mauritania. 41 ♂ 26 ♀ Algeria to Constantine (May–Sept.).

(c). Large, ♂ F 16 mm., resembling closely the large Moroccan form, but uph the discal markings reduced. Unh reddish brown.

Sub-sp. **williamsi** Querci 1932: ♂ Alemtijo, Portugal: April.

B.M. 11 ♂ 5 ♀ Alemtijo (April).

(d). Smaller, ♂ F 15 mm.: very much darker: uph spots often faint. Unh dark reddish brown, pale markings reduced.

Sub-sp. **proto** Ochsenheimer 1808: ♂ Portugal: fig Esper (not published until 1839 in the Charpentier edition).

B.M. 13 ♂ 2 ♀ Monchique (April–May). 1 ♂ near Lisbon (Sept.): similar, but very small, ♂ F 13 mm.

(e). ♂ F 14–15 mm. A comparatively constant form flying from May to Sept., never as large as *williamsi*, nor as dark as *proto*, more strongly marked than *fulvosatura*. Unh greenish to red.

Sub-sp. **aragonensis** Sagarra 1924: ♂ Albarracin. Fig Oberthür 1912, fig 1267, as *proto*.

Synonyms. *rubea* and *fenestrata* Sagarra 1924. *nigrita* Verity 1925. *clarescens* Agenjo 1934. *evansi* Bryk 1940. All from Spain.

B.M. 31 ♂ 9 ♀ Andalusia. 33 ♂ 20 ♀ New Castille. 52 ♂ 29 ♀ Aragon. 1 ♂ E. Pyrenees. 31 ♂ 18 ♀ Bouches-du-Rhône. 5 ♂ 3 ♀ Sicily. 13 ♂ 13 ♀ Greece. 8 ♂ 8 ♀ Sarepta.

(f). ♂ F 14–15 mm. Paler brown and more heavily spotted. Uph the discal spot in space 7 usually present. Unh reddish usually.

Sub-sp. **lycaonius** Wagner 1929: ♂ Anatolia.

Synonym. *hieromax* Hemming 1932: ♂ Trans-Jordan: figured.

B.M. 2 ♂ Uralsk. 1 ♂ 2 ♀ Turkey. 6 ♂ Asia Minor.

8 ♂ 5 ♀ Syria. 1 ♂ Palestine. 1 ♂ 6 ♀ Irak. 3 ♂ 1 ♀ Persia (N.W. Kermanshah).

7a (2b). Nudum > ½ club.
7 (8). Antennal club long, arcuate, nudum 14. ♂ upf costal fold vestigial. Unh greenish: in space 7, the inner and outer spots placed on either side of the discal band, the inner spot being nearer to the band than to the basal cell spot. Valva with ventral edge straight at end. Aedeagus sheath flanked by spined processes.

poggei. 3 sub-species.
(a). End of valva tapered. Uph the two dots of the submarginal row in spaces 4 and 5 closer to the end cell spot than to the termen. ♂ F 15 mm.
Sub-sp. **poggei** Lederer 1858: ♂ Damascus. Fig Oberthür 1912: genitalia by Reverdin 1916, fig 5062 as "X?".
Synonym. *ioan* Warren 1926: ♂ Taurus: figured.
B.M. 1 ♂ 1 ♀ Caucasus. 28 ♂ 16 ♀ Syria. 1 ♂ Lebanon. 1 ♂ Armenia. 3 ♂ Irak (Malatia). 1 ♂ "Samarkand".
(b). End of valva expanded. Uph the 2 dots of the submarginal row in spaces 4 and 5 not nearer to cell spot than to termen. Generally large, ♂ F 16 mm., but a smaller, darker form occurs, ♂ F 13½ mm.
Sub-sp. **lutulentus** Groum Grshmaïlo 1887: ♀ Hissar Mts.: type B.M. Fig Oberthür 1912, fig 1239.
B.M. 14 ♂ 2 ♀ Samarkand. 10 ♂ 3 ♀ Bokhara.
(c). Similar, but much darker. Upf discal and apical spots very small, but double spot in space 1b conspicuous. Uph and unh submarginal spots faint: unf not whitened at apex: unh browner. ♂ F 14½ mm.
Sub-sp. **patta** nov: ♂ Kuliab, Afghanistan: type B.M.
B.M. Only the type.

8 (7). Antennal club straighter and shorter, nudum 12. ♂ upf costal fold well developed. Valva at end slopes well away from cuiller. No spined processes flanking the aedeagus sheath in the first 4 sub-species: present in last 3. Unh in space 7, the spots typically as in *proto*, the inner spot adjoining the basal cell spot and the outer in continuation of the discal band.

staudingeri. 7 sub-species.

(a). ♂ above pale and profusely marked: uph with a conspicuous spot in space 7. ♂ unh greenish: the spotting in space 7 abnormal, only a single large spot over the origin of vein 7, nearer to the discal band than to the basal cell spot. ♂ F 15 mm. ♀ exactly like *proteus*, reddish unh.

Sub-sp. **plurimacula** Christoph 1893: ♂ Shahrud: type B.M. Fig Alberti 1940.

B.M. 1 ♂ 1 ♀ Shahrud. 1 ♂ Hyrcania.

(b). ♂ similar to *plurimacula*. Uph no spot in space 7. Unh spots in space 7 as in *proto*. ♂ F 14 mm.

Sub-sp. **staudingeri** Speyer 1879: ♂ Saisan. Fig Alberti 1940 from Saisan (type) and Badakhshan.

Synonym. *albata* Reverdin 1916: ♂ Ili River: figured (larger, ♂ F 16 mm.) and genitalia.

B.M. 2 ♂ Balamurun, Karatou, S.E. of Lake Aral.

(c). ♂ typically large, F 16 mm., and submarginal spots faint or absent. Unh varies from green to red or brown.

Sub-sp. **proteus** Staudinger 1886: ♂ Margilan. Fig Oberthür 1912 as *staudingeri* and *proteus*; Lep Ind ♀ as *poggei*; Alberti 1940.

Synonym. *epimetheus* Mabille 1909: ♂ Margilan.

B.M. 3 ♂ Askabad. 1 ♂ Khojakent. 1 ♂ 1 ♀ Terak Pass. 1 ♂ Tura. 4 ♂ 6 ♀ Ferghana. 8 ♂ 3 ♀ Samarkand. 3 ♀ Sarafshan. 3 ♂ 5 ♀ "Turkestan". 19 ♂ 8 ♀ Naryn River. 13 ♂ 4 ♀ Alexander Mts. 2 ♂ Altai.

(d). ♂ 14 mm. Above profusely marked as in *staudingeri*, but the submarginal spots upf faint or absent: usually discal dots in spaces 4 and 5. Unh light red, border pale, rendering the submarginal spots faint, but much more regular than usual.

Sub-sp. **prometheus** Groum Grshmaïlo 1890: ♂ Trans-Alai: type B.M.: figured (as *proto* on plate). Fig Alberti 1940.

B.M. 6 ♂ Trans-Alai. 2 ♂ Amdo.

(e). Exactly as *proteus*: unh reddish: ♂ F 16 mm. Differs only in the genitalia being provided with spined processes flanking the aedeagus sheath.

Sub-sp. **musta** nov: ♂ Paghman Mts., Afghanistan, 8,000 ft., June: J. L. Chaworth Musters: type B.M.

B.M. 6 ♂ type loc.

(f). Exactly as *staudingeri*, ♂ F 13 mm.: above markings rather smaller. Unh pale greenish, termen broadly white. Genitalia as *musta*.

Sub-sp. **loga** nov: ♂ Logar Valley, Afghanistan: type B.M. B.M. 3 ♂ Logar Valley.

(g). ♂ F 13 mm.: upf costal fold faint. Upf very dark, bar end cell absent and submarginal spots faint. Uph no cell spot. Unf no white scaling in cell, costa and apex pale greenish. Unh uniform pale greenish, markings faint, spots in space 7 arranged more as in *poggei*. Genitalia as *musta*.

Sub-sp. **phil** nov: ♂ Baluchistan, Chotair, 4,000 ft., May: W. H. Evans: type B.M.

B.M. 18 ♂ 5 ♀ First brood, May–June. 24 ♂ 3 ♀ second brood, Sept. All Baluchistan, Ziarat–Loralai Road, 4–6,000 ft.

D.6. PYRGUS Hübner 1819: type *malvae* Linnaeus: fixed by Westwood 1841 as *alveolus* Hübner, a synonym of *malvae*.

Synonyms. *Syrichtus* Boisduval 1834: type *oileus* Linnaeus: by tautonomy the type is *syrichtus* Fabricius, a synonym of *oileus*.

Scelotrix Rambur 1857: to replace *Syrichtus* objected to, incorrectly, on the score of tautonomy.

Bremeria Tutt 1906: type *bieti* Oberthür: fixed by Lindsey 1921: homonym by Alphéraky 1892, but replacement not required.

Teleomorpha, *Hemiteleomorpha*, *Ateleomorpha* Warren 1926: types fixed by Hemming 1934 as *carthami* Hübner (recte *fritillarius* Poda), *malvae* Linnaeus and *onopordi* Rambur.

1a (7a). The ventral end of the gnathos reduced to a narrow chitinous ring, usually flanked by paired lateral processes.

1b (3a). The ventral end of the gnathos not, or only slightly, indented to receive the aedeagus.

1 (2). The dorsal end of the gnathos divided and ending on side of the uncus. Small, ♂ F 12–14 mm. Generally upf spots small and sharply defined, including bar at end cell: uph submarginal spots sharply defined: unf with

submarginal spots in spaces 1b and 2: unh the 3 basal spots small and widely separated. Usually flies from March to August: in spring smaller and whiter, summer larger and darker, and in autumn again smaller.

malvae. 4 sub-species, with 3 forms of genitalia.

(a). Dorsal arms of gnathos completely conjoined to sides of uncus, which is undivided: ventral end of gnathos flanked by short, pointed, lateral processes, widely separated from the aedeagus: clasp with cuiller and style connivent. Upf submarginal spots in spaces 1b and 2 usually absent. Unh bright to dark reddish brown. Double-brooded.

Sub-sp. **malvoides** Elwes & Edwards 1897: ♂ Biarritz: type B.M.: genitalia figured. Fig Warren 1926; Oberthür 1910, figs 449–455 as *fritillum* and 458–460, 464 as *malvae*; Rambur 1839 as *fritillum*.

Synonyms. *alpina*, *andalusica*, *pyrenaica* Tutt 1906. *fritillans* Oberthür 1910. *semi-confluens* Reverdin 1911. *pseudo-malvae* Verity 1913: *scabellata* Oberthür 1913. *luctuata* Verity 1914. *tutti* Verity 1919. *reducta* Warren 1920. *albina*, *fasciata*, *intermedia*, *restricta* Warren 1926. *melotiformis*, *modestior* Verity 1929. *alpestris*, *post-tutti* Verity 1940.

B.M. 16 ♂ 14 ♀ Portugal. 44 ♂ 22 ♀ Spain. 40 ♂ 28 ♀ Pyrenees. 74 ♂ 58 ♀ France (Var, Bouches-du-Rhône, Alpes Maritimes, Lauteret, Isère, Chateaudun, Gers, Digne and Larches, Basses Alpes, Hautes Alpes, Haute Savoie, Savoie. 24 ♂ 20 ♀ Switzerland (Grisons, Tessin, Valais). 51 ♂ 27 ♀ Italy. 12 ♂ 8 ♀ Sicily. 7 ♂ 3 ♀ S. Tyrol. 1 ♂ 2 ♀ Trieste.

(b). Dorsal arms of gnathos separate from uncus, twisted, sharply pointed and spined at back: ventral end of gnathos without lateral processes: uncus deeply divided: clasp with style widely separated from cuiller. Similar to *malvoides*, but upf submarginal spots in spaces 1b and 2 usually present. Liable to aberrations (*taras*) with the discal spots upf elongate and the spots in space 1b conjoined.

Sub-sp. **malvae** Linnaeus 1758: Aaland Is.: type coll Linnean Soc. Fig Oberthür 1910, figs 465–467; Warren 1926.

Synonyms. *minor* Esper 1777. *sao* and *taras* Bergstrasser 1779. *althaeae* Esper 1783. *fritillum* Fabricius 1787 (nec Schiffermüller). *lavaterae* Fabricius 1787 (nec Esper). *alveolus* Hübner 1802. *cardui* Latreille 1823. *intermedia* Schilde 1886. *fasciata* Tutt 1896. *moryi* Strand 1902. *zagrabiensis* Gundlacher 1903. *brunnea*, *australis*, *albina*, *restricta*, *rufa* Tutt 1906. *albina* Oberthür 1910. *pseudotaras* Lacreuze 1910. *scabellata* Reverdin 1912. *bilineata*, *margino-elongata* Reverdin 1914. *punctigera* Fuchs 1919. *reducta*, Warren 1920. *mülleri* Diosz 1930. *asia-clarae*, *elegantior* Verity 1934.

B.M. 38 ♂ 25 ♀ England. 92 ♂ 50 ♀ France (Paris, Seine-et-Oise, Seine-et-Marne, Morbihan, Haute Vienne, Savoie, Aix-les-Bains, Haute Loire, Charente Inf., Eure-et-Loire, Marne, Cantal, Loir-et-Cher, Doubs). 13 ♂ 2 ♀ Switzerland (St. Gall, Geneva, Vaud, Zurich, Lausanne). 5 ♂ 2 ♀ Belgium. 1 ♂ Denmark. 3 ♂ 2 ♀ Esthonia. 1 ♂ Sweden. 5 ♂ 2 ♀ Norway. 4 ♂ 1 ♀ Finland. 21 ♂ 19 ♀ Germany. 1 ♂ Wiesbaden. 39 ♂ 30 ♀ Austria. 2 ♂ 3 ♀ Trieste area. 3 ♂ Styria. 2 ♂ S. Tyrol. 10 ♂ 6 ♀ Carinthia. 8 ♂ 6 ♀ Bohemia. 36 ♂ 18 ♀ Hungary. 32 ♂ 2 ♀ Croatia. 1 ♂ Bosnia. 8 ♂ 7 ♀ Slavonia. 5 ♂ 3 ♀ Bulgaria. 22 ♂ 6 ♀ Greece (Macedonia, Mt. Olympus, Parnassus). 29 ♂ 10 ♀ Bosphorus. 4 ♂ 5 ♀ W. Anatolia. 2 ♀ Leningrad. 4 ♂ 1 ♀ Moscow. 1 ♂ 1 ♀ Sarepta. 4 ♂ Uralsk. 1 ♂ 1 ♀ Novorossisk. 4 ♂ Volhynia. 1 ♂ 1 ♀ Turgai, W. Siberia. 1 ♂ 1 ♀ Alexander Mts. 2 ♂ Tian Shan. 4 ♂ 1 ♀ Alai. 1 ♂ 1 ♀ Naryn Riv. 7 ♂ 2 ♀ Altai. 1 ♂ E. Sajanak Mts. 2 ♂ Irkut. 15 ♂ 3 ♀ Trans-Baikal (Chita, Apfelgebirge). 10 ♂ 1 ♀ N.E. of Vladivostok (Sichota Alin Mts.). 2 ♂ 3 ♀ Amur.

(c). Similar in all respects to *malvae*, but genitalia as *melotis*.

Sub-sp. **pontica** Reverdin 1914: ♂ Pontus: figured.

B.M. 13 ♂ 7 ♀ E. Anatolia (Tokat, Ak-Chehir, Egerdir, Kedos, Yozgat, Antalaya, Amasia).

(d). Dorsal arms of gnathos placed as in *malvae*, but slender throughout and unspined: ventral end of gnathos with more or less developed slender, pointed, lateral appendages, placed as in *malvoides*: uncus usually undivided, but individuals may have it more or less divided:

style of clasp widely separated from the cuiller, but longer and more slender than in *malvae*. Typical *melotis* is larger than *malvae*, wings more rounded, and spots, above, larger: unh whitened, obscuring the markings, but intergrades to *pontica* are not infrequent.

Sub-sp. **melotis** Duponchel 1832: ♂ Is. of Milo: figured. Fig Warren 1926.

Synonyms. *hypoleucos* Lederer 1855: ♂ Beyrout: figured. *graeca* Oberthür 1910: ♂ "Greece": type B.M.: figured. *reducta* Warren 1926.

jordana Hemming 1932: ♂ Trans-Jordan: figured.

B.M. 4 ♂ 1 ♀ "Greece" (probably Is. of Milo). 63 ♂ 22 ♀ Syria. 1 ♂ Lebanon. 1 ♂ 1 ♀ Palestine (Jordan Valley).

2 (1). The dorsal end of the gnathos undeveloped (fused to the tegumen), as in remaining species of the genus. The lateral appendages at the ventral end of the gnathos erect and spined. Unh reddish. ♂ F 15–16 mm.

carlinae. 2 sub-species with slightly different genitalia.

(a). The lateral appendages with 3 long stout spines at the tip and smaller spines on the inner edge. Upf markings large, quadrate: uph usually conspicuously marked.

Sub-sp. **cirsii** Rambur 1839: ♂ Fontainebleau: figured. Co-type fig by Oberthür 1912, fig 1286, also figs 1285–8. Fig Warren 1926. Fig Verity 1940 as *fritillum*.

Synonyms. *iberica* Gr. Grshmaïlo 1893: ♂ Spain: type B.M.

fabressei and *herrichii* Oberthür 1910: Sierra Alta and Digne: types B.M.: figured.

extensa Warren 1920. *nigro-carens*, *parafabressei* Verity 1925. *martorelli* Sagarra 1926. *castanea*, *supralutea* Agenjo 1934. *onopordimima* Verity 1940.

B.M. 58 ♂ 35 ♀ Spain (Andalusia, Aragon, New Castille, Catalonia). 2 ♂ 2 ♀ Andorra. 38 ♂ 12 ♀ Var. 27 ♂ 27 ♀ Digne. 7 ♂ 5 ♀ Charente. 9 ♂ Lot. 30 ♂ Lozère. 24 ♂ 9 ♀ Loire Inf. 1 ♂ 1 ♀ Eure-et-Loire. 2 ♂ 2 ♀ Dordogne. 1 ♀ Ariège. 2 ♂ Alpes Maritimes. 1 ♂ 1 ♀ Bouches-du-Rhône. 1 ♂ Haute Garonne. 1 ♂ Puy-de-Dôme. 1 ♂ Haute Savoie. 1 ♂ Saône-et-Loire. 7 ♂ 3 ♀ Seine-et-Marne.

7 ♂ Yonne. 5 ♂ Switzerland (Vaud). 5 ♂ 2 ♀ Germany (Nürnberg, Fürth).

(b). The appendages shorter, with equally small spines at tip and inner edge. Upf markings smaller, not quadrate: uph markings generally faint. In ♀ tendency for markings, above, to be obsolete.

Sub-sp. **carlinae** Rambur 1839: ♂ Alps, Dalécarlie: type B.M.: figured. Fig Reverdin 1910; Warren 1926.

Synonyms. *olivacea* Oberthür 1910: ♂ Hautes Alpes: type B.M.: figured. *caecus* Turati & Verity 1911. *atrata* Verity 1925. *fasciata*, *extensa* Warren 1926. *caeca* Vorbrodt 1928.

B.M. 37 ♂ 2 ♀ Alpes Maritimes (St. Martin de Vesubie). 2 ♂ 1 ♀ Dauphiné Alps. 1 ♂ Mt. Pelat. 2 ♂ Digne. 28 ♂ 2 ♀ Larches, Basses Alpes. 42 ♂ 21 ♀ Valais. 26 ♂ 26 ♀ Savoie. 40 ♂ 15 ♀ Hautes Alpes. 9 ♂ 5 ♀ Switzerland (Grisons, Vaud, Berne, Interlaken, Ticino, Fribourg). 2 ♂ 4 ♀ Tirol and Carinthia. 7 ♂ 1 ♀ Piedmont. 47 ♂ 7 ♀ Valtournache, Aosta.

3a (1b). The ventral end of the gnathos deeply indented, so as to receive the aedeagus, and either side of the indented portion is serrated.

3b (6). Style shorter than cuiller and not twisted.

3 (4a). Cuiller semi-circular on an inclined diameter: style short, slender, obtuse. Small, ♂ F 12–14 mm. Wings more pointed. Upf with sharply defined small, but conspicuous, markings, particularly the spot at end of cell.

armoricanus. 2 sub-species.

(a). Tip of cuiller pointed: antistyle slender, necked, curled round and pointed. Unh dark areas reddish: uph markings varying from obscure to conspicuous. Seasonal change from brown to grey, above.

Sub-sp. **armoricanus** Oberthür 1910: ♂ Rennes: type B.M.: figured. Fig Reverdin 1912; Warren 1926.

Synonyms. *centralis*, *jaceae* Oberthür 1912.

siciliae Oberthür 1913: ♂ Sicily: type B.M.: figured.

corsica Oberthür 1919: ♂ Corsica: type B.M.: figured.

fulvo-inspersa, *onopordiformis* Verity 1919. *enervata* Verity 1920. *extensa* Warren 1920. *tersa* Verity 1924. *rufosatura*

Verity 1925. *petheri* Romei 1927. *cacaotica* Verity 1929. *fritillaire* Querci 1932. *disjuncta* Alberti 1940. *eschata* Verity 1940.

B.M. 16 ♂ 7 ♀ Morocco. 13 ♂ 3 ♀ Algeria. 48 ♂ 14 ♀ Spain (New and Old Castille, Asturias, Calabria). 150 ♂ 92 ♀ France (Pyrenees, Morbihan, Bouches-du-Rhône, Charente, Dignes, Deux Sevres, Hérault, Ile et Vilaine, Var, Vienne, Lot, Eure-et-Loire, Orne, Eure, Loire Inf., Vendée, Oise, Savoie). 6 ♂ 6 ♀ Corsica. 51 ♂ 3 ♀ C. and S. Italy (May–August). 15 ♂ 7 ♀ Sicily. 17 ♂ 7 ♀ Switzerland (Geneva, Locarno, Tessin, Simplon). 1 ♂ Germany. 8 ♂ 4 ♀ Austria. 14 ♂ 14 ♀ Hungary. 12 ♂ Croatia. 7 ♂ Bulgaria.

(b). Tip of cuiller rounded: antistyle not so bent round or pointed, much more like *alveus*. Above greyer: unh greener.

Sub-sp. **persica** Reverdin 1913: ♂ Kuldsar, Persia: figured.

Synonyms. *reverdini* Le Cerf 1914. *prostanae* Pfeiffer 1927. *lecerfi* Verity 1928. *philonides* Hemming 1931. *postpersica* Verity 1936.

B.M. 39 ♂ Macedonia (Feb.–Aug.). 35 ♂ 10 ♀ Bosphorus. 15 ♂ 6 ♀ Asia Minor. 2 ♂ 2 ♀ Syria. 4 ♂ Lebanon. 1 ♂ 2 ♀ Novorossisk. 1 ♀ Sarepta. 1 ♂ Georgia, Barkhom. 1 ♂ Armenia. 2 ♂ Achal Tekke. 2 ♂ 7 ♀ Persia, Elburz Mts. 1 ♂ 3 ♀ Kermanshah.

4a (3). Cuiller generally larger than a semicircle. Unh greenish.

4 (5). Cuiller more or less quadrate, not abnormally elongate at back: style generally angled and parallel to face of clasp.

alveus. 7 sub-species.

(a). Large, ♂ F 16 mm., and grey form, with conspicuously large markings upf and uph. Cuiller very elongate laterally.

Sub-sp. **numida** Oberthür 1910: ♂ Algeria: type B.M.: figured. Fig. Oberthür 1915.

Synonym. *scabellata* Oberthür 1915: ♂ Lambèse: type ? lost.

B.M. 53 ♂ 24 ♀ Algeria. 63 ♂ 5 ♀ Morocco. 1 ♀ Andalusia.

(b). ♂ F 14–16 mm. Generally darker than *numida*: varying towards *alticola*, *centralitaliae* and *sifanicus*. Cuiller larger than a semicircle.

Sub-sp. **alveus** Hübner 1803: ♂ no loc. (? Germany): figured. Fig Reverdin 1910; Warren 1926.

Synonyms. *funginus* Schilde 1886: figured. *scandinavicus* and *suffusa* Strand 1903. *ryffelensis* Oberthür 1910: ♂ Ryffel Alps: type B.M.: figured.

ballotae Oberthür 1910: ♂ Norway: type B.M.: figured. *lineolata* Reverdin 1912: figured. *serratuloides* Heinrich 1916: figured. *reverdini* Schawerda 1918. *extensa* and *reducta* Warren 1920. *foulquieri-formis* Verity 1920. *accreta*, *albens*, *centralhispaniae*, *grandis* Verity 1925. *jurassica*, *serratulae-formis*, *trebevicensis* Warren 1926. *thomanni* Reverdin 1927: figured. *warrenensis*, *bellieriformis* Verity 1928. *insignia-miscens*, *magnalveus*, *necaccreta*, *pyrenei-alpium* Verity 1929. *montana* Vorbrodt 1930. *caeca* Rebel & Zerny 1931. *claralveus* Verity 1934.

B.M. 11 ♂ 11 ♀ Spain (New and Old Castille, Asturias, Aragon, Catalonia). 70 ♂ 25 ♀ Hautes Pyrénées. 43 ♂ 12 ♀ Pyrénées Orientales. 8 ♂ Andorra. 25 ♂ 2 ♀ Alpes Maritimes. 1 ♂ 1 ♀ Hérault. 6 ♂ 4 ♀ Eure. 3 ♂ Aveyron. 2 ♂ Oise. 1 ♂ Charente Inf. 5 ♂ 3 ♀ Charente. 8 ♂ 4 ♀ Haute Loire. 1 ♂ 1 ♀ Loire Inf. 1 ♂ 1 ♀ Saône-et-Loire. 1 ♀ Gers. 2 ♂ 2 ♀ Digne. 28 ♂ 26 ♀ Larches, Basses Alpes (July). 27 ♂ 9 ♀ Hautes Alpes. 39 ♂ 13 ♀ Savoie. 24 ♂ Haute Savoie. 3 ♂ 4 ♀ Jura. 19 ♂ 24 ♀ Grisons. 3 ♂ Julier Pass. 1 ♂ Uri. 1 ♂ Unterwalden. 1 ♀ Vaud. 10 ♂ 2 ♀ Berne. 20 ♂ 4 ♀ Ticino. 2 ♂ 1 ♀ Saas Valley. 18 ♂ 18 ♀ Zermat. 4 ♂ 1 ♀ Ryffel Alps. 4 ♂ 1 ♀ Simplon. 7 ♂ 2 ♀ Norway. 3 ♂ Sweden. 1 ♂ Ligurian Alps. 68 ♂ 6 ♀ Valtournache, Aosta. 44 ♂ 24 ♀ Tyrol. 18 ♂ 4 ♀ Gross Glockner. 9 ♂ 4 ♀ Hungary. 1 ♂ 1 ♀ Bosnia. 1 ♂ Albania. 1 ♂ Rumania. 10 ♂ 2 ♀ Bulgaria.

(c). Small, ♂ F 13 mm., and dark form, with very small spots upf. Cuiller not larger than a semicircle. Flies with *alveus* in Alpine areas.

Sub-sp. **alticola** Rebel 1910: Alps. Fig, as *ryffelensis*, Oberthür 1913, pl. 92/1839–1863: Warren 1926, pl. 43/1–8.

B.M. 37 ♂ 15 ♀ Larches, Basses Alpes. 1 ♂ Savoie. 2 ♂ Mt. Cenis. 5 ♂ 2 ♀ Ryffel Alps. 5 ♂ 2 ♀ Grisons. 3 ♂ Piedmont. 15 ♂ 8 ♀ Valtournache, Aosta. 28 ♂ 33 ♀ Gross Glockner.

(d). ♂ F 15 mm. Upf as *alveus*: uph markings strongly developed and yellower than similar specimens occurring in the S. of France, as varieties of *alveus*.

Sub-sp. **centralitaliae** Verity 1920: ♂ Sibillini Mts. Fig Warren 1926, pl. 42/1–7.

B.M. 68 ♂ 29 ♀ C. Italy (June–Sept.).

(e). ♂ F 14–16 mm. Typically distinguished by the broad white borders, below. The material is insufficient to decide whether the variation in C. Asia is individual or sub-specific. Generally the spots upf are larger than in typical *alveus*.

Sub-sp. **sifanicus** Groum Grshmaïlo 1891: ♂ Kukunor: type B.M. Fig Reverdin 1915: Alberti 1940.

Synonyms. *iliensis* Reverdin 1912: ♂ Ili Riv., E. Turkestan: figured.

schansiensis Reverdin 1915: ♂ Ta-tsing-schau, Schansi: figured.

kansuensis Reverdin 1927: ♂ W. Liang Tschou, Kansu: figured.

B.M. 6 ♂ 2 ♀ Caucasus. 1 ♂ Elburz Mts., N. Persia. 4 ♂ 2 ♀ Tobolsk. 12 ♂ 8 ♀ Altai. 1 ♂ 1 ♀ Chengai Mts., Mongolia. 4 ♂ E. Siberia. 8 ♂ 1 ♀ Kukunor.

(f). ♂ F 13–14 mm. Wings rounded. Upf markings small: uph unmarked. Unh dark greenish, pale markings narrow.

Sub-sp. **speyeri** Staudinger 1887: ♂ Amur: figured. Fig Reverdin 1910; Oberthür 1912, figs 1240–1.

Synonym. *seitzi* Mabille 1909: ♀ Amur: figured.

B.M. 1 ♂ 1 ♀ Irkutsk. 3 ♂ 1 ♀ Kentei Mts., Mongolia. 1 ♂ 1 ♀ Chita, Trans-Baikal. 16 ♂ 8 ♀ Apfelgebirge, Trans-Baikal. 19 ♂ 7 ♀ Amur.

(g). ♂ F 14 mm. Above, as *speyeri*. Below, borders whitened as in *sifanicus*. Unh the central discal spot, in spaces 4–5, with its upper edge prolonged inwards and outwards, as in *onopordi*.

Sub-sp. **reverdini** Oberthur 1912: ♂ Ta Tsien Lou: type B.M.: figured.

B.M. 2 ♂ 1 ♀ E. Thibet, How Kow. 1 ♂ S.E. Thibet, Shiuden Gompa. 14 ♂ 2 ♀ W. Szechwan, Ta Tsien Lou. 3 ♂ 1 ♀ Szechwan, Kelley–Roosevelt expedition.

5 (4). Back of cuiller abnormally elongate and cuiller twice as long as wide, style very short. Above, markings as in *alveus*, but on uph always conspicuous.

bellieri. 3 sub-species, with slightly varying clasps.
(a). ♂ F 16 mm. Unh dark areas greenish-ochreous, equal to or greater than the white areas.

Sub-sp. **foulquieri** Oberthür 1910: ♂ Marseilles: type B.M.: figured. Fig Oberthür 1916 from Var; Warren 1926.
B.M. 3 ♂ 2 ♀ Catalonia. 23 ♂ 15 ♀ Alpes Maritimes. 1 ♂ 1 ♀ Aveyron. 25 ♂ 25 ♀ Var. 19 ♂ 4 ♀ Bouches-du-Rhône. 9 ♂ 2 ♀ Lozère and Isère. 26 ♂ 24 ♀ Digne, Basses Alpes. 5 ♂ 3 ♀ Hautes Alpes (July–Aug.).
(b). ♂ F 13–14 mm. Greyer and smaller. Unh greener and the white areas predominate.

Sub-sp. **bellieri** Oberthür 1910: ♂ Larches: type B.M.: figured (No. 490: 491 is of *alveus* ♀). Fig Oberthür 1916; Warren 1926.
Synonym. *extensa* Warren 1926.
B.M. 28 ♂ 27 ♀ Larches, Basses Alpes (July–August).
(c). ♂ F 12–14 mm. Yellower. Unh dark areas like *foulquieri*, but often the white areas are as extensive as in *bellieri*.

Sub-sp. **picena** Verity 1920: ♂ C. Italy. Fig Verity 1900.
Synonyms. *suprabellieri*, *nigropicta* Verity 1920 and 1926.
B.M. 26 ♂ 24 ♀ Sibillini Mts. (June–Sept.), 1 ♀ Sorrento. 1 ♂ Sabine Mts. 1 ♂ Molise Roccarasa.

6 (3b). Style as long as cuiller and twisted, as in *centaureae*: cuiller large, quadrate, resembling *alveus*. Large, ♂ F 16 mm. Above, spots large, resembling *carlinae cirsii*. Unh dark areas greenish ochreous, as in *alveus*.

cinarae Rambur 1839: ♂ Sarepta: type B.M.: figured. Fig Warren 1926; Oberthür 1912.
Synonyms. *cynarae* Boisduval 1840. *clorinda* and *extensa* Warren 1927. *bigornia* Agenjo 1934. *atrata* Thurner 1938.

B.M. 6 ♂ 2 ♀ C. Spain. 12 ♂ 3 ♀ No. loc 15 ♂ 2 ♀ Sarepta. 6 ♂ 3 ♀ Guberli, Russia. 6 ♂ 2 ♀ Asia Minor. 1 ♂ Macedonia. 1 ♂ Turkestan.

7a (1a). The ventral end of the gnathos broad.

7b (9a). Ventral end of the gnathos prostrate, i.e. parallel to the vinculum and not to the uncus, thus resembling the indented gnathos of the *alveus* group (3a), but the base of the indentation is filled in.

7 (8). The gnathos, on either side of the aedeagus, fitted with long, slender, finely serrate appendages. Style of clasp short. ♂ F 12–14 mm. Upf markings sharp: uph blurred. Unh reddish (to greenish): the pale central discal spot, in spaces 4–5, is anvil-shaped, the upper edge being prolonged inward and outward.

onopordi Rambur 1839: ♂ Granada: type B.M.: figured. Fig Oberthür 1910 and 1916; Warren 1926.

Synonyms. *conyzae* Guenée 1877: ♂ Savoie: type B.M.: Fig Oberthür 1910. *quercii* Oberthür 1912: ♂ C. Italy: type B.M.: figured.

albo-velata, *fulvo-tincta* Verity 1919. *reducta* Warren 1920. *nigro-satura*, *rubescens*, *pallidissima*, *pallidissima-fulva*, *subconyzae*, *tersior*, *tersissima*, *venusta* Verity 1925. *post-genita* Verity 1926. *post-quercii* Verity 1940.

27 ♂ 27 ♀ E. Algeria. 27 ♂ 27 ♀ W. Algeria. 27 ♂ 27 ♀ Morocco (Ap.–Oct.). 33 ♂ 19 ♀ Spain. 7 ♂ 7 ♀ Portugal. 111 ♂ 72 ♀ France (Pyrenees, Bouches-du-Rhône, Vienne, Var, Charente, Alpes Maritimes, Lot, Basses Alpes, Hautes Alpes, Savoie). 1 ♂ 5 ♀ Valais. 32 ♂ 22 ♀ C. Italy.

8 (7). Ventral end of gnathos without appendages, but on either side of the centre there is a heavily spined triangular area. Style of clasp as long as the cuiller. Generally resembles *alveus* and varies in the same way. Unh greenish and the basal white spot in space 7 is usually oval and detached.

serratulae. 4 sub-species, with similar genitalia.

(a). ♂ F 13–14 mm.: reaching 16 mm. in certain localities (Vendée: Charente: Eure: Aube). Upf spots usually well marked in ♂ and ♀.

Sub-sp. **serratulae** Rambur 1839: ♂ Spain: type B.M.: figured. Fig Reverdin 1910; Oberthür 1910; Warren 1926. Synonyms. *tarasoides* Höfn 1897. *occidentalis* Lucas 1910: Vendée: fig Reverdin 1910: Oberthür 1910, figs 480–481: Warren 1926.

minor Oberthür 1910: ♂ Hautes Pyrénées: type B.M.: figured.

conspersa and *ochracea* Reverdin 1910: figured. *extensa* Warren 1920. *fragilis*, *late-albata*, *planorum* Verity 1925. *alveiformis* and *balcanica* Warren 1926. *magna-gallica* Verity 1931 to replace *occidentalis*, a homonym by Skinner 1906. *diniensis* and *clarissima* Heinrich 1938. *plurisignata* Silbernagel 1946.

B.M. 74 ♂ 29 ♀ Spain (Andalusia to Pyrenees). 47 ♂ 34 ♀ Pyrenees. 143 ♂ 38 ♀ France (Alpes Maritimes, Basses Alpes, Digne and Larches. Hautes Alpes, Savoie, Cantal, Puy-de-Dôme, Ile et Vilaine, Auvergne, Vendée, Charente, Eure, Aube). 19 ♂ 5 ♀ Switzerland (Valais, Uri, Ticino, Berne, Grisons). 8 ♂ 3 ♀ C. Italy. 4 ♂ 1 ♀ Dolomites. 5 ♂ 2 ♀ Tyrol. 8 ♂ 7 ♀ Austria. 4 ♂ 5 ♀ Germany. 5 ♂ 1 ♀ Czecho-Slovakia. 8 ♂ 4 ♀ Hungary. 2 ♂ Bosnia.

(b). Small, ♂ F 12–13 mm. Upf spots reduced and mostly absent in ♀. An alpine form similar to *alveus alticola*.

Sub-sp. **caecus** Freyer 1852: Tirol Alps: figured.

Synonyms. *nigra* and *restricta* Hoffman 1914.

B.M. 51 ♂ 24 ♀ Grisons. 4 ♂ Zermatt. 3 ♂ 1 ♀ Sondrio, N. Italy. 7 ♂ 5 ♀ Gross Glockner. 26 ♂ 14 ♀ Tyrol.

(c). Large, ♂ F 15–16 mm. Upf spots generally larger.

Sub-sp. **uralensis** Warren 1926: ♂ Uralsk: figured. Fig Oberthür 1910 as *major*.

Synonyms. *major* Staudinger 1879: homonym by Fabricius 1787.

infra-obscurata Verity 1938: ♂ Macedonia: figured.

B.M. 2 ♂ 1 ♀ Hungary. 12 ♂ 4 ♀ Greece. 17 ♂ 5 ♀ Asia Minor. 16 ♂ 5 ♀ Syria. 10 ♂ 5 ♀ Uralsk. 8 ♂ 1 ♀ Altai. 1 ♂ 4 ♀ Apfelgebirge, Trans-Baikal.

(d). Small, ♂ F 12 mm., and much lighter grey, above. Upf spots larger than in any other sub-species and uph markings conspicuous. Unh much paler ochreous green. Resembles *armoricanus persica* which flies with it.

Sub-sp. **alveoides** Staudinger 1901: ♂ Syria. The description agrees with specimens flying in July and August in the Lebanon.
B.M. 8 ♂ 2 ♀ Lebanon.

9a (7b). Ventral end of gnathos erect, parallel to uncus.
9b (16a). Unh base of space 7 dark and the basal pale spot adjoins the pale spot at the base of the cell, while the second pale spot forms part of the discal band, as in all the preceding species.
9c (12a). Unh the basal spot in space 7 overlaps the spot base cell.
9 (10a). Upf a pale spot at the base of space 2, only present in one European species (15) and all Chinese species (16a) also all American species. ♂ F 11 mm. Uph submarginal spots and the cell spot conspicuous. Unh as *alveus*, but no basal spot in space 1c. Clasp as in *alveus*, style short. Secondary sexual characters not mentioned.

badachschana Alberti 1939: ♂ Sebaktal, Badakshan, 9,000 ft. genitalia figured. Fig Alberti 1940.
B.M. None. No specimens seen: 2 ♂ said to have been obtained.

10a (9). Upf no pale spot at base of space 2. Style as long as cuiller. Upf and unf with more or less well-developed submarginal spots.
10 (11). Unh dark areas orange, black edged, as in *Muschampia antonia*.

sidae. 2 sub-species with similar genitalia.
(a). Generally smaller, ♂ F to 16 mm., with smaller markings. There are two more or less intergrading forms. The first is smaller, unh duller with blacker veins and submarginal pale spots in spaces 1c to 3. The second, like *sidae*, larger, unh brighter with submarginal black dots in spaces 1c to 2.

Sub-sp. **occidua** Verity 1925: ♂ Tuscany. Fig Warren 1926.
Synonym. *occidentalis* Verity 1919: homonym by Skinner 1906.
B.M. 41 ♂ 22 ♀ France (Alpes Maritimes, Var, Hérault,

Bouches-du-Rhône, Dignes, Basses Alpes). 24 ♂ 24 ♀ Peninsular Italy.

(b). Larger, ♂ F up to 18 mm., with larger markings.

Sub-sp. **sidae** Esper 1782: ♂ Volga: figured. Fig Warren 1926.

Synonyms. *hafneri* Stauder 1911. *albo-radiata* Bubaček 1926. *reducta* Warren 1926.

B.M. 1 ♂ 2 ♀ Dalmatia. 1 ♂ 1 ♀ Hungary. 1 ♂ 1 ♀ Herzegovina. 17 ♂ 3 ♀ Macedonia. 2 ♂ 1 ♀ S.W. Bulgaria. 15 ♂ 7 ♀ Bosphorus. 17 ♂ 8 ♀ S. Russia. 32 ♂ 12 ♀ Asia Minor. 5 ♂ 1 ♀ Syria. 1 ♂ 1 ♀ Persia. 6 ♂ 2 ♀ Turkestan.

11 (10). Unh dark areas greenish-ochreous.

fritillarius. 2 sub-species with similar genitalia.

(a). Generally smaller, darker and less conspicuously marked above. ♂ F to 16 mm. (up to 17 mm. in the Valais).

Sub-sp. **fritillarius** Poda 1761: Gratz: fig Roesel 1746, pl. 10/7. Fig Warren 1926.

Synonyms. *fritillum* Schiffermüller 1775. *major* Fabricius 1787. *carthami* Hübner 1819: figured. *valesiaca* Mabille 1875. *duosignata* Kilian 1897. *rühli* Mabille 1904. *valesina* Mabille 1909. *major* Rebel 1910. *nevadensis* and *vittatus* Oberthür 1910: figured. *reducta* Warren 1920. *speciosa* Verity 1921. *immaculata* and *pyrenaica* Warren 1926. *restricta* Galvani 1927. *micro-carthami* Verity 1928. *albana* Heinrich 1928. *viriati* and *zamorensis* Fernandez 1928. *lucasi* Reverdin 1929. *analoga* and *septentrionalis* Alberti 1938.

B.M. 45 ♂ 37 ♀ Spain (Andalusia to Pyrenees). 14 ♂ 2 ♀ Hautes Pyrénées. 8 ♂ 8 ♀ Pyrénées Orientales. 108 ♂ 66 ♀ France (Alpes Maritimes, Var, Bouches-du-Rhône, Haute Loire, Lozère, Deux Sèvres, Aveyron, Cantal, Dignes and Larches, Basses Alpes, Isère, Hautes Alpes, Savoie). 16 ♂ 11 ♀ Valais. 1 ♂ 1 ♀ Berne. 10 ♂ 10 ♀ Grisons. 12 ♂ 4 ♀ N. Italy. 14 ♂ 14 ♀ C. and S. Italy. 1 ♂ Sicily. 10 ♂ 8 ♀ Germany. 10 ♂ 10 ♀ Tyrol. 10 ♂ 10 ♀ Austria. 9 ♂ 9 ♀ Hungary. 1 ♂ 1 ♀ Czecho-Slovakia. 21 ♂ Croatia. 1 ♂ 1 ♀ Bosnia. 13 ♂ 5 ♀ Rumania. 1 ♂ Bulgaria. 1 ♂ Livonia. 1 ♀ Greece. 7 ♂ 5 ♀ Podolsk.

(b). Wings more produced. ♂ F to 17 mm. Above much greyer, markings larger and more developed. Unh paler.

Sub-sp. **moeschleri** Herrich-Schäffer 1854: figured. Fig Warren 1926.

Synonyms. *galactites* Rambur 1858: ♂ Sarepta: type B.M. *sidaeformis* Warren 1926.

B.M. 27 ♂ 16 ♀ Sarepta. 1 ♂ 1 ♀ Guberli. 1 ♂ Saisan. 1 ♂ Urumi. 1 ♀ "Broussa".

12a (9c). Unh pale spot base space 7 not overlapping the spot base cell. Style as long as cuiller.

12 (13a). ♂ upf costal fold absent (present in all other European and Asiatic species of *Pyrgus*). Upf spot in space 2 always nearer to the cell spot than to the spot in space 3. Unh dark areas greenish brown. Small ♂ F 13 mm.

alpina. 3 sub-species with similar genitalia.

(a). Very dark. Upf spots very small: uph unmarked: unh "washed-out" appearance, like *cacaliae*, only the upper part of the discal band and the inner spot in space 7 present.

Sub-sp. **darwazica** Groum Grshmaïlo 1890: ♂ Darwaz Mts., Bokhara: type B.M.: figured. Fig Oberthür 1912, fig 1258.

B.M. 2 ♂ type loc. 1 ♀ Trans-Alai. 1 ♂ 1 ♀ Samarkand.

(b). Upf and uph markings conspicuous: unh markings complete.

Sub-sp. **alpina** Erschoff 1874: ♂ Khokand: figured. Fig Oberthür 1912, figs 1254–7.

Synonym. *submurina* Reverdin 1933: ♂ Bokhara.

B.M. 2 ♂ Sarafshan. 2 ♂ 1 ♀ Samarkand. 16 ♂ 8 ♀ Ferghana. 2 ♂ 1 ♀ Issyk-Kul. 27 ♂ 12 ♀ Thian Shan. 22 ♂ 11 ♀ Naryn Riv. 3 ♂ 2 ♀ Kashgar. 12 ♂ 5 ♀ Hunza. 3 ♂ Yasin. 6 ♂ 3 ♀ Astor. 1 ♂ 3 ♀ Gilgit. 33 ♂ 14 ♀ Chitral.

(c). Upf spots small, those in spaces 1b, 2 and cell in line: uph markings absent or faint. Unh markings more or less incomplete.

Sub-sp. **cashmirensis** Moore 1874: ♂ Kashmir: type B.M.: figured. Fig Oberthür 1912, fig 1269; Lep Ind.

B.M. 1 ♂ "Killom, near Quetta". 1 ♂ 1 ♀ Safed Koh. 4 ♂ 4 ♀ Baltistan. 38 ♂ 17 ♀ Kashmir. 12 ♂ 2 ♀ Ladakh. 5 ♂ 1 ♀ Lahoul. 10 ♂ 3 ♀ Kulu. 1 ♂ Kumaon. 2 ♂ Bhutan.

13a (12). ♂ with costal fold. Upf spot in space 2 not nearer cell spot than spot in space 3.

13b (15). Upf no spot at base of space 2 and unh basal spot in space 1c not elongate.

13 (14). Cuiller with a long face against the style, twice as long as the stalk, i.e. the part of the cuiller against the antistyle. ♂ F 15 mm., dark with reduced markings, uph unmarked. Unh greenish ochreous brown: cell spot absent, discal band incomplete, spots in spaces 2 and 3 usually absent: post-discal band represented only by large white spots to the termen in spaces 1c and 4–5, the former reaching the central spot.

cacaliae Rambur 1839: ♂ Alps: figured: type B.M. Fig Reverdin 1910; Warren 1926.

Synonyms. *caeca* Reverdin 1912: figured. *restricta* Hoffman 1914. *reducta* Warren 1920. *cantoniera* Belling 1926: nom nud. *pyrenaeus* Picard 1947: ♂ W. Pyrénées.

B.M. 5 ♂ 3 ♀ Maritime Alps. 32 ♂ 11 ♀ Basses Alpes. Larches and Mt. Pelat. 44 ♂ 43 ♀ Swiss Alps. 7 ♂ 7 ♀ Carinthia. 23 ♂ 15 ♀ Tyrol. 1 ♀ Germany. 3 ♂ 3 ♀ Bulgaria.

14 (13). Cuiller with a short face, not much wider than the stalk. F ♂ 15 mm. Upf spots well developed, usually a double inner spot in space 1b. Uph post-discal, and often the discal, band present. Unh greenish brown, with a tendency for the veins to be white: discal markings complete.

centaureae. 2 Old World and 2 American sub-species with slight differences in the shape of the cuiller.

(a). Uph post-discal spots usually suffused and the central band vestigial or absent. Unh typically with the post-discal spots in spaces 1c and 4–5 extended as large spots to the termen: the spot base cell faint. ♂ F 16 mm. Some specimens from the Altai are inseparable from typical *centaureae*. *sibirica* seems to be a link with *cacaliae*, which might be regarded as conspecific with *centaureae*.

Sub-sp. **sibirica** Reverdin 1911: ♂ Altai: figured.
Synonym. *chapmani* Warren 1926: ♂ Sajan Mts.: figured.
B.M. 3 ♂ 2 ♀ Sajan Mts. 11 ♂ 10 ♀ Altai.
(b). Upf spots larger and uph post-discal spots usually sharply defined, the discal band more or less conspicuous, as well as the costal spot. Unh generally with the post-discal spot in space 1c detached from the termen, but the post-discal spot in spaces 4–5 is continued solidly to the termen. In the American sub-species, *freija* and *wyandot*, the post-discal band unh is separated from the termen throughout and the spot at the base of the cell is more or less widely separated from the spot near the base of space 7, whereas in *centaureae* they usually adjoin. ♂ F 14–15 mm.

Sub-sp. **centaureae** Rambur 1839: ♀ Dalécarlie: figured. Fig Warren 1926.
Synonyms. *striata* and *fasciata* Warren 1926.
B.M. 13 ♂ 16 ♀ Lapland. 4 ♀ Finland. 1 ♂ 1 ♀ Finmark. 25 ♂ 15 ♀ Lulea, Lappmark. 11 ♂ 3 ♀ "Norway". 9 ♂ 9 ♀ "Scandinavia".

15 (13b). Upf with a white spot at base of space 2 (sometimes absent). Unh basal spot in space 1c prolonged towards the large spot mid space 1c. Face of cuiller long, as in *cacaliae*. ♂ F 14–16 mm. Unh the large white spot in space 1c at termen is prolonged to the discal spot in space 2, while the remaining post-discal spots are usually absent and the usual spot before the termen in space 4–5 is insignificant.

andromedae Wallengren 1853: Scandinavia. Fig Warren 1926.
Synonyms. *borealis* Fuchs 1900: Norway.
striata Vorbrodt 1912: Simplon.
perseus Schawerda 1919: S. Tyrol. Fig Warren 1926.
B.M. 2 ♀ Finmark. 1 ♂ Finland. 7 ♂ 7 ♀ Lapland. 2 ♂ 1 ♀ Hautes Pyrénées. 3 ♂ Basses Alpes. 1 ♂ Mont Cenis. 2 ♂ 2 ♀ Hautes Alpes. 1 ♂ Savoie. 37 ♂ 10 ♀ Swiss Alps (Plavnathal, Bergun, Stelvio, Engadine). 19 ♂ 9 ♀ "Alps". 2 ♂ Valtournache, Aosta. 1 ♂ 1 ♀ Bavaria. 27 ♂ 11 ♀ Austria. 1 ♀ Hungary. 2 ♂ Bosnia.

16a (9b). Unh base of space 7 pale, forming part of a more or less extensive pale basal area. Upf nearly always a spot at base of space 2, under the cell spot.

16 (17a). Unh the dark central area not divided Y-wise to costa by the pale spot mid space 7. With sharply differing spring and summer broods (A and B).

maculatus. 3 sub-species.

(a). Style short and broad, not nearly as long as the cuiller. Ventral side of gnathos furnished with short spines. Unf apex beyond the sub-apical spots uniformly dark to termen.

A—Spring form. ♂ F 14 mm. Upf with large conspicuous spots. Uph usually with conspicuous discal and post-discal spots. Unh usually with a very narrow spot mid space 7 in the broad central dark band and the post-discal band is well marked.

B—Summer form larger, ♂ F 15 mm., wings more rounded and not so black. Upf spots very much smaller. Uph with only 2 (rarely more) small central spots. Unh pale post-discal band absent.

Sub-sp. **maculatus** Bremer & Grey 1853: ♂ near Pekin A. Fig Ménétriés 1855 A; Pryer 1889, pl. 10/21 A, 22 B; Oberthür 1912, fig 1230–1 A, 1232–4 B.

Synonyms. *zona* Mabille 1875: ♂ ? Peking: type B.M. B.
albistriga Mabille 1876: ♂ E. Asia. B.
sinicus Butler 1877: ♂ Japan: type B.M. B.
amurensis Staudinger 1892: Amur. A.
tokochiana Matsumura 1930: ♂ Hokkaida: figured. B.

B.M. A 9 ♂ 4 ♀ Kukunor. A 1 ♂ Chita, Trans-Baikal. B 1 ♀ Mongolia. A 24 ♂ 30 ♀, B 1 ♂ 3 ♀ E. Siberia. A 10 ♂ 1 ♀ Askold. A 1 ♂ 2 ♀, B 1 ♀ Manchuria. B 8 ♂ 5 ♀ Korea. A 12 ♂ 15 ♀, B 28 ♂ 13 ♀ Japan. A 5 ♂ 1 ♀, B 7 ♂ 2 ♀ N. China. A 1 ♂ 1 ♀, B 2 ♂ Pekin. A 3 ♂ 1 ♀, B 1 ♂ 1 ♀ Shan Si. A 1 ♂ 1 ♀ S. Shen Si. A 4 ♂ 4♀, B 11 ♂ 5 ♀ Shantung.

(b). Close to and more or less intergrading with (a). Generally—

A—Unh darker, post-discal band and spot mid space 7 absent.

B—Uph usually with 4 central spots. Unh the basal two-thirds of the wing more or less overlaid with white scaling.

Sub-sp. **bocki** Oberthür 1912: ♂ Kiang Si: type B.M.: figured. B. Fig Leech 1894, pl. 41/2 A, 1 and 3 B; Oberthür 1912, figs 1228–9 A, 1235–6 B (types).
B.M. A 3 ♂ 3 ♀, B 5 ♂ Leon Fang. A 3 ♂ 3 ♀, B 2 ♂ 4 ♀ Shanghai. B 4 ♂ 1 ♀ Chusan Is. B 1 ♂ 4 ♀ Ya Chiao Ling. A 3 ♂ 3 ♀, B 4 ♂ 1 ♀ Chekiang. A 6 ♂ 1 ♀, B 4 ♂ 1 ♀ Chia Ting Fu, Szechwan. A 8 ♂ 7 ♀, B 7 ♂ 4 ♀ Hupeh. A 1 ♂ 2 ♀, B 3 ♂ 4 ♀ Fukien. B 2 ♂ Hunan. A 3 ♂, B 2 ♂ 4 ♀ Kiang Si. A 1 ♂ Kwang Si. B 1 ♂ Kwang Tung.
(c). Style as long as the cuiller. Ventral side of gnathos furnished with long spine-like hairs on either side of the aedeagus. Unf apex beyond the sub-apical spots, inner half dark, outer half white. Above, generally similar in both forms to the preceding. Below both forms resemble the summer form of *maculatus*, but the termen of both wings is broadly paler, particularly unf. ♂ F 14 mm.

Sub-sp. **thibetanus** Oberthür 1891: ♂ Ta Tsien Lou: type B.M.: figured, A. Fig Oberthür 1912, figs 1223–26 ♂ ♀ A.
B.M. A 17 ♂ 6 ♀ Ta Tsien Lou. 1 ♂ Wa Ssu Kow. 2 ♂ Maenia. 2 ♂ 2 ♀ Batang. 1 ♂ Quase. 2 ♂ 1 ♀ Szechwan, Kelly–Roosevelt Expedition. 4 ♂ 7 ♀ Li-kiang, Yunnan. 2 ♂ 1 ♀ Tsekou. 2 ♂ Ta Pin Tze. 1 ♂ 8 ♀ Teng Yueh Ting. 1 ♂ "Burma" (? Shan States). B 2 ♂ Mosy Mien. 1 ♀ Ta Tsien Lou.

17a (16). Unh the dark central area conspicuosly divided Y-wise to the costa by the large white spot mid space 7.
17 (18a). Unf the spot at base of space 2 always present as a sharply defined spot or dot on a dark ground. ♂ F 14–15 mm.

bieti. 2 sub-species with similar genitalia.
(a). Generally unh with the dark areas greenish-ochreous and the tornus broadly white from space 1c to space 2. There seems to be only one variable seasonal form, but 4 ♂ from Ta Tsien Lou have very large spots upf and a white streak in the cell internal to the cell spot: the series from Yaragong are somewhat similar.

Sub-sp. **bieti** Oberthür 1886: ♂ Ta Tsien Lou: type B.M.: figured. Fig Oberthür 1912, figs 1218, 1219.

B.M. 66 ♂ 49 ♀ Ta Tsien Lou. 7 ♂ Wa Ssu Kow. 6 ♂ 1 ♀ Yaragong, Thibet. 1 ♂ Vrianotsang. 1 ♂ Batang. 1 ♀ Rama La, S.E. Thibet. 1 ♂ Maenia.

(b). Unh dark areas generally redder and the post-discal spots separated from the termen by a dark area.

Sub-sp. **yunnana** Oberthür 1912: ♂ Yunnan: type B.M.: figured.

B.M. 14 ♂ 5 ♀ Yunnan (Li-kiang, Ta Pin Tze).

18a (17). Unf the pale spot at base of space 2 absent or represented by a suffused streak. Apex F more pointed.

18 (19). Unh the discal white band very irregular in width and direction: the post-discal band of separated spots, narrow and well defined in the broad darker border. Style projects beyond the cuiller.

oberthüri. 2 sub-species with slightly different clasps.

(a). Smaller, ♂ F 13–14 mm., and darker, particularly in respect of the dark areas unh. End of cuiller more rounded.

Sub-sp. **oberthüri** Leech 1891 (June): ♂ Wa Ssu Kow: type B.M. Fig Leech 1894: Oberthür 1912, fig 1213 ♀ (nec 1214–15).

B.M. 16 ♂ 3 ♀ Ta Tsien Lou. 9 ♂ 6 ♀ Wa Ssu Kow. 1 ♂ Batang. 1 ♂ Fort Narine, E. Turkestan.

(b). Larger, ♂ F to 16 mm. Unh dark areas tend to be white scaled. One ♀ has the dark areas unh reddish.

Sub-sp. **delavayi** Oberthür 1891: ♂ Yunnan: type B.M.: figured.

B.M. Yunnan—1 ♂ Teng Yueh Ting. 2 ♂ Ta Pin Tze. 11 ♂ 1 ♀ Li-kiang. Szechwan—33 ♂ 1 ♀ Kelly–Roosevelt Expedition (Wushi, 12,000 ft.).

19 (18). Unh dark areas reddish, the discal white band comparatively straight, continuous and regular: the post-discal band similar, but may be absent or very narrow: outer border white or brown. Cuiller rather narrower and style not projecting beyond it: antistyle only spined on the dorsal end and not at both ends, as in *oberthüri*. ♂ F 13–15. The larger specimens are from Ta Tsien Lou and but for them, *dejeani* could well be treated as a sub-species of *oberthüri*.

dejeani Oberthür 1912: ♀ Ta Tsien Lou: type B.M.: figured. Oberthür at the same time figured the ♂ (figs 1214–5) as *oberthüri*.
B.M. 1 ♂ 1 ♀ Tura (Transcaspian). 6 ♂ 5 ♀ N. Thibet (Amdo, Nan Shan). 2 ♂ 2 ♀ S.E. Thibet (Charme, Gyantse, Pusho, Kyari Dzung). 1 ♂ 1 ♀ Sikkim, Chumbi Valley, 12,000 ft. 1 ♀ Nenden, E. Thibet. 3 ♂ 3 ♀ Ta Tsien Lou.

E.1. VLASTA Lindsey 1925: type *extrusus* Felder: fixed by author.
Synonym. *Protogenes* Mabille & Boullet 1912: type *extrusus* Felder: fixed by authors: homonym by Hack 1868.

Upf black with shining blue bases. ♂ F 18 mm.
extrusus. 2 sub-species.
(a). ♂ upf with a conspicuous double white hyaline spot and a spot immediately below it. ♀ upf the cell spot separated and the spot below absent.
Sub-sp. **extrusus** Felder 1867: ♂ Aru: type B.M.: figured.
B.M. 6 ♂ 4 ♀ Aru. 1 ♂ 1 ♀ "New Guinea".
(b). ♂ upf unmarked usually and ♀ with the markings reduced. Rather larger.
Sub-sp. **icosia** Fruhstorfer 1911: ♂ Dutch New Guinea: type B.M.
Synonyms. *affinis* Mabille & Boullet 1912: ♂ "French Guiana".
basalis Joicey & Talbot 1916: ♀ Schouten Is., N.G.: type B.M.
B.M. 11 ♂ 13 ♀ New Guinea. 1 ♀ Schouten Is. 2 ♂ Waigou. 1 ♂ Fergusson Is. 1 ♂ 1 ♀ Goodenough Is.

E.2. FELICENA Waterhouse 1932: type *dirpha* Boisduval: fixed by author.

1 (2). ♂ unh with a large silvery white spot mid space 1c: upf with a dark stigma, as in *Toxidia doubledayi*. ♀ unh brown with obscure ill-defined markings of white or purple scales. Cilia H broadly white. ♂ F 16 mm.
dirpha. 3 sub-species.

(a). Upf unmarked except for a hyaline white dot near base of space 3 and a straight row of hyaline spots in spaces 6, 7 and 8. Unf dorsum dark.

Sub-sp. ***albicilla** Joicey & Talbot 1917: ♂ Wandammen Mts.: type B.M.

B.M. 5 ♂ 2 ♀ Dutch New Guinea, type loc.

(b). Upf with a double hyaline spot in the cell in addition. Unf dorsum pale.

Sub-sp. **nota** nov: ♂ Goodenough Is.: type B.M.

B.M. 6 ♂ 3 ♀ type loc.

(c). Described as having on upf 4 white spots in a quadrangle, preceded by a single spot: unh with a shining white discoidal spot on a yellowish ground.

Sub-sp. **dirpha** Boisduval 1832: New Ireland.

Synonym. ? *phalos* Boisduval 1832: New Guinea.

B.M. None.

2 (1). ♂ unh with a central and submarginal broad band of sparse purplish-white scaling. Upf marked as in *nota*, but the lower part of the cell spot is produced basad as in *Dispar compacta*: a dot in space 2 immediately under the spot in space 3. Unf dorsum with a broad whitish area, divided centrally by a dark bar: a small spot in space 2 immediately under the cell spot: purple scaling along termen. Cilia H less broadly white. ♂ stigma similar. Wings more produced. ♂ F 16 mm.

***dora** nov: ♂ S. New Guinea, Majoebui; L. M. d'Alberti 1876: type B.M.

B.M. 2 ♂ type loc. 1 ♂ Dorey Bay, Andai: W. Doherty 1892 (darker and markings somewhat reduced).

E.3. TRAPEZITES Hübner 1823: type *symmomus* Hübner: sole species included.

Synonyms. *Steropes* Boisduval 1832: type *iacchus* Fabricius: fixed by Lindsey 1925: homonym by Stephens 1806. *Patlasingha* Watson 1893: type *phigalia* Hewitson: fixed by author.

1a (9a). Apiculus pointed and longer than width of club.

1 (2a). Antennal shaft unchequered. Nudum 18/8. ♂ F 22 mm.

symmomus. 3 sub-species.
(a). Upf spots smaller. Unh darker, spots smaller.
Sub-sp. **sombra** Waterhouse 1932: ♂ N. Queensland.
B.M. 3 ♂ 2 ♀ N. Queensland.
(b). Spots larger. Unh brighter.
Sub-sp. **symmomus** Hübner 1823: ♂ New Holland (Sydney): figured. Fig Waterhouse 1932.
B.M. 11 ♂ S. Queensland. 24 ♂ 16 ♀ N. S. Wales.
(c). Wings more rounded. Brightest form, with longest spots.
Sub-sp. **soma** Waterhouse 1932: ♂ Victoria.
B.M. 3 ♂ 1 ♀ Victoria.

2a (1). Antennal shaft chequered, as in all other Australian *Trapezitinae.*
2b (5a). Unh without a spot in space 7 or mid space 1c.
2 (3a). Unh cell spot very large, no spot in space 6. Nudum 8/6. ♂ F 14 mm.
heteromacula Meyrick & Lower 1902: ♂ N. Queensland. Fig Waterhouse 1932.
B.M. 1 ♂ 5 ♀ N. Queensland.

3a (2). Unh with a spot in space 6. Nudum 14/6.
3 (4). Above spots dull yellow. Unh pale brown with all spots silver-centred and sub-equal. ♂ F 17 mm.
iacchus Fabricius 1775: ♀ Queensland: type B.M. Fig Waterhouse 1932.
B.M. 15 ♂ 5 ♀ Queensland.

4 (3). Above spots bright orange. Unh salmon, spots unequal. ♂ F 16 mm.
eliena. 2 sub-species.
(a). Unh bright salmon, discal spots usually complete.
Sub-sp. **eliena** Hewitson 1868: ♂ Moreton Bay: type B.M. Fig Waterhouse 1932.
Synonym. *caecilius* Plötz 1884: ♂ N. S. Wales.
B.M. 22 ♂ 6 ♀ S. Queensland. 29 ♂ 4 ♀ N. S. Wales.
(b). Unh darker and discal spots often obsolete.
Sub-sp. **monocycla** Lower 1911: ♀ Mt. Gambier.
B.M. 8 ♂ 3 ♀ Victoria.

5a (2b). Unh with a spot in space 7 and mid space 1c.
5b (7a). Unh without dense grey scaling. Nudum 10/7. ♂ F 16 mm.
5 (6). ♂ unh spot in cell small and insignificant.
iacchoides Waterhouse 1903: ♂ Katoomba. Fig Waterhouse 1932.
Synonym. *obruta* Seitz 1927: No loc.
B.M. 3 ♂ N. S. Wales.

6 (5). ♂ unh with the cell spot and the spot mid space 1c very large. ♀ unh pinkish grey with small diffuse dark spots.
maheta. 2 sub-species.
(a). Lighter and unh more variegated.
Sub-sp. **maheta** Hewitson 1877: ♂ Brisbane: type B.M.
B.M. 8 ♂ 9 ♀ Queensland.
(b). Darker and unh more uniform.
Sub-sp. **praxedes** Plötz 1884: ♂ Port Jackson. Fig Waterhouse 1932.
B.M. 27 ♂ 10 ♀ N. S. Wales.

7a (5b). Unh with dense grey scaling.
7 (8). Upf apical spots irregular, lower spot out of line: spot in space 2 completely overlapping the cell spot. Nudum 9/6. ♂ F 16 mm.
phigalioides Waterhouse 1903: ♀ Victoria. Fig Waterhouse 1932.
B.M. 9 ♂ 2 ♀ N. S. Wales. 2 ♂ Victoria.

8 (7). Upf apical spots regular, as usual. Nudum 12/5. ♂ F 15 mm.
phigalia. 2 sub-species.
(a). Unh pinker.
Sub-sp. **phila** Waterhouse 1937: ♂ Stradbroke Is.
B.M. 2 ♂ Queensland.
(b). Unh greyer and more uniform.
Sub-sp. **phigalia** Hewitson 1868: ♀ Australia: type B.M. Fig Waterhouse 1932.
Synonyms. *phlaea* Plötz 1884: ♀ Melbourne.
phillyra Miskin 1889: ♂ Victoria.
B.M. 19 ♂ 4 ♀ N. S. Wales. 13 ♂ 2 ♀ Victoria. 1 ♀ S. Australia.

9a (1a). Apiculus blunt, no longer than width of club. ♂ 15 mm.
9 (10a). Unh with small cell and discal spots. Nudum 10/4.
sciron Waterhouse & Lyell 1914: ♀ Stirling Ranges. Fig Waterhouse 1932.
B.M. 19 ♂ 7 ♀ Bunbury, W. Australia.

10a (9). Unh with single cell spot, no discal spots.
10 (11). Unh grey, cell spot very large on a pale orange area. Nudum 9/4.
petalia Hewitson 1868: ♂ Moreton Bay: type B.M. Fig Waterhouse 1932.
Synonym. *megalopis* Meyrick 1887: ♂ Gayndah.
B.M. 7 ♂ 7 ♀ Queensland. 20 ♂ 1 ♀ N. S. Wales.

11 (10). Unh overlaid greenish to yellow scales, cell spot much less conspicuous. Nudum variable 4/9 to 6/7.
lutea. 3 sub-species.
(a). Above, markings clearer yellow and spots rather larger. Unf usually with a pale spot in space 1b.
Sub-sp. **leucon** Waterhouse 1938: ♂ Milmerran.
B.M. 4 ♂ 4 ♀ S. Queensland. 4 ♂ N. S. Wales.
(b). Duller and below greener.
Sub-sp. **lutea** Tepper 1881: ♂ Ardrossan. Fig Waterhouse 1932.
B.M. 2 ♂ 3 ♀ S. Australia.
(c). Larger, with smaller markings. Unf no spot in space 1b.
Sub-sp. **glaucus** Waterhouse & Lyell 1914: ♂ Tasmania. Fig Waterhouse 1932.
B.M. 11 ♂ 9 ♀ Tasmania.

E.4. ANISYNTOIDES Waterhouse 1932: type *argenteo-ornatus* Hewitson: fixed by author.

argenteo-ornatus. 2 sub-species.
(a). ♂ F 14 mm.
Sub-sp. **argenteo-ornatus** Hewitson 1868: ♀ Swan River: type B.M. Fig Waterhouse 1932.

B.M. 2 ♂ N.W. Australia. 19 ♂ 17 ♀ W. Australia. 9 ♂ 6 ♀ Wallaby Is., W.A.

(b). Upf spots whiter and larger. Unh darker.

Sub-sp. **insula** Waterhouse 1932: ♂ Hermite Is.

B.M. 4 ♂ 2 ♀ Hermite Is., W.A. (Montebello Expedition).

E.5. ANISYNTA Lower 1911: type *cynone* Hewitson: fixed by author.

1a (5a). ♂ upf without discal stigma.

1 (2a). Unh inconspicuous: ferruginous brown overlaid grey scaling, leaving some, more or less obscure, small discal spots of the ground colour. ♂ F 15 mm.

sphenosema Meyrick & Lower 1902: ♂ Perth. Fig Waterhouse 1932.

Synonym. *paraphaes* Meyrick & Lower 1902: ♀ Perth.

B.M. 15 ♂ 11 ♀ W. Australia.

2a (1). Unh conspicuously marked.

2 (3a). Unh veins conspicuously white. ♂ F 14 mm.

albovenata. Waterhouse 1940: ♂ Yorke's Penin., S.A.

B.M. 1 ♂ N. S. Wales (Gunnedah). 2 ♀ S. Australia (type loc.).

3a (2). Unh veins not white: a regular row of conspicuous white post-discal spots from space 1c to space 7, a large central spot beyond end cell and large spots mid cell and space 1c.

3 (4). Unh without a spot mid space 7. ♂ F 12 mm.

cynone. 3 sub-species.

(a). Unh with olive-grey superscaling on dark areas.

Sub-sp. **grisea** Waterhouse 1932: ♂ Kerang, Victoria.

B.M. 4 ♂ N. S. Wales (Gunnedah). 1 ♂ Victoria (Kerang).

(b). Unh with brown superscaling. Upf markings reduced, no spot in space 1b: unh markings large.

Sub-sp. **cynone** Hewitson 1874: ♂ Australia: type B.M.

B.M. 1 ♂ type only: true locality "Mouth of Murray River", fide Waterhouse 1932.

(c). As *cynone*, but upf markings well developed, extending into space 1b: unh markings smaller.

Sub-sp. **gracilis** Tepper 1882: ♂ Adelaide. Fig Waterhouse 1932.
B.M. 10 ♂ S. Australia (Adelaide neighbourhood).

4 (3). Unh with a large white spot mid space 7. ♂ F 16 mm.
tillyardi Waterhouse & Lyell 1914: ♂ Ebor, N.S.W.: figured. Fig Waterhouse 1932.
B.M. 5 ♂ 4 ♀ N. S. Wales (Ebor, Murrumundi).

5a (1a). ♂ upf with discal stigma. Unh with an irregular central pale band.
5 (6). Uph with conspicuous tawny central spots. ♂ F 13 mm.
monticolae Olliff 1889: ♂ Mt. Kosciusko. Fig Waterhouse 1931.
B.M. 1 ♂ N. S. Wales (Bathurst). 3 ♂ 3 ♀ Victoria (Mt. St. Bernard, Walhalla).

6 (5). Uph unmarked.
dominula. 5 sub-species.
(a). Large, ♂ F 16 mm. Unh ferruginous. Cilia conspicuously chequered.
Sub-sp. **draco** Waterhouse 1938: ♂ Ebor.
B.M. 8 ♂ 1 ♀ N. S. Wales (Ebor).
(b). ♂ F 15 mm. Unh browner. Cilia less chequered.
Sub-sp. **drachmophora** Meyrick 1885: ♂ Mt. Kosciusko. Fig. Waterhouse 1932.
B.M. 4 ♂ 1 ♀ Barrington Tops. 4 ♂ 3 ♀ Mt. Kosciusko.
(c). ♂ F 15 mm. Greyer.
Sub-sp. **dyris** Waterhouse 1938: ♂ Mt. Franklyn, Canberra.
B.M. 1 ♂ type loc.
(d). Paler above and below. Large, ♂ F 17 mm.
Sub-sp. **dominula** Plötz 1884: ♂ Tasmania.
B.M. 6 ♂ 4 ♀ Tasmania.
(e). Similar, but much smaller, ♂ F 14 mm.
Sub-sp. **pria** Waterhouse 1932: ♂ Cradle Mt., Tasmania.
B.M. 2 ♂ 1 ♀ type loc.

E.6. OREISPLANUS Waterhouse & Lyell 1914: type *munionga* Olliff: fixed by authors.

1 (2). Unh ground colour yellow. ♂ F 14 mm.

munionga Olliff 1889: ♂ Kosciusko. Fig Waterhouse 1932.
B.M. 14 ♂ 2 ♀ Mt. Kosciusko. 1 ♂ Canberra.

2 (1). Unh ground colour white. ♂ F 15 mm.
perornatus Kirby 1893: ♀ Victoria: type B.M. Fig Waterhouse 1932.
B.M. 15 ♂ 8 ♀ N. S. Wales. 6 ♂ 5 ♀ Victoria.

E.7. DISPAR Waterhouse & Lyell 1914: type *compacta* Butler: fixed by authors.

♂ F 12 mm. ♂ upf hooked spot in cell: uph with small hyaline discal spots. ♀ upf with small yellow spots: uph whitish area in spaces 4–5: unh with broad whitish discal band.
compacta Butler 1882: ♂ Melbourne: type B.M. Fig Waterhouse 1932.
Synonyms. *scepticalis* Rosenstock 1885: ♀ Melbourne: type B.M.
atrax Mabille 1891: ♀ Australia.
melissa Mabille 1891: ♂ Sydney: type B.M.
B.M. 18 ♂ 8 ♀ N. S. Wales. 14 ♂ 11 ♀ Victoria.

E.8. HEWITSONIELLA Shepard 1931: type *migonitis* Hewitson: fixed by author as *aenesius* Hewitson, which is a synonym of *migonitis*.
Synonym. *Hewitsonia* Evans 1926: id.: homonym by Kirby 1871.

Brown: ♂ upf with 3 hyaline yellow apical spots and 3 large conjoined discal spots in spaces 2, 3 and cell. Below, paler, apex F and all H suffused purple: unh with 3 broad, suffused, dark bands. ♀ upf the spots are white and those on the disc are separated: unh paler and appearing more variegated. ♂ F 24 mm.
***migonitis** Hewitson 1876: ♀ Mysol: type B.M.
Synonyms. *aenesius* Hewitson 1876: ♂ Dorey: type B.M.
trimaculatus Rothschild 1915: ♀ Dampier: type B.M.
B.M. 1 ♂ 1 ♀ Aru. 2 ♂ 3 ♀ Mysol. 2 ♂ Waigou. 1 ♀ Dampier. 33 ♂ 4 ♀ New Guinea.

E.9. TOXIDIA Mabille 1891: type *thyrrhus* Mabille: sole species included.
Synonyms. *Telesto* Boisduval 1832: type *peron* Latreille: sole species included.
Oxytoxia Mabille 1904: type *doubledayi* Felder: fixed by Lindsey 1925.
Timoconia Strand 1909: type *peron* Latreille: sole species included was *thielei* Strand, which is a synonym of *peron* Latreille.

1a (6a). ♂ stigma inclined, crosses middle of vein 1.
1b (4a). ♂ stigma crosses vein 3 into base of space 3, broad.
1 (2a). ♂ stigma black: cell spot hook-like. ♀ upf spots conspicuous, but none in space 1b. Unh grey with obscure dark band. ♂ F 16 mm. Nudum of 20 segments.
peron Latreille 1824: ♂ New Holland. Fig Waterhouse 1932.
Synonyms. *kochii* Felder 1862: ♂ Sydney.
doclea Hewitson 1868: ♂ Moreton Bay: type B.M.
arsenia Plötz 1884: ♀ Sydney: MS. fig in B.M.
thielei Strand 1907: ♂ "Delagoa Bay": type checked at B.M.
B.M. 19 ♂ 11 ♀ Queensland. 27 ♂ 9 ♀ N. S. Wales.

2a (1). ♂ stigma grey.
2 (3). ♂ upf unmarked: ♀ with small spots in spaces 3 and 6 to 8. ♂ F 15 mm. Nudum 14.
thyrrhus Mabille 1891: ♂ Cooktown. Fig Waterhouse 1932.
Synonym. *bathrophora* Meyrick & Lower 1902: ♂ Mackay.
B.M. 19 ♂ 18 ♀ Queensland.

3 (2). ♂ upf with small spots in cell, spaces 3 and 6 to 8: ♀ also with spot in space 2 and usually 2 spots in space 1b. ♂ F 12 mm. Nudum 13.
parvulus Plötz 1884: ♂ Sydney. Fig Waterhouse 1932.
Synonyms. *humilis* Miskin 1889: ♂ Brisbane.
ismene Anderson & Spry 1894: ♂ Victoria.
B.M. 5 ♂ 4 ♀ Queensland. 29 ♂ 15 ♀ N. S. Wales. 1 ♀ Victoria. 1 ♂ S. Australia.

4a (1b). ♂ stigma does not cross vein 3, black. Unh plain grey.

4 (5). ♂ stigma broad. ♂ F 13 mm. Nudum 15.

crypsigramma Meyrick & Lower 1902: ♂ Herberton. Fig Waterhouse 1932.

B.M. 3 ♂ Queensland.

5 (4). ♂ stigma very narrow. Nudum 16.

sexguttata. 2 sub-species.

(a). Smaller, ♂ F 13 mm. Upf spots conspicuous and an additional spot present below the spot in space 3.

Sub-sp. **sela** Waterhouse 1932: ♂ Banks Island.

B.M. 1 ♂ Port Darwin. 1 ♂ N. Queensland.

(b). Larger, ♂ 14 mm. ♂ upf spots minute, only in spaces 3 and 6.

Sub-sp. **sexguttata** Herrich-Schäffer 1869: ♀ Rockhampton: figured. Fig Waterhouse 1932.

B.M. 5 ♂ N. Queensland.

6a (1a). ♂ stigma erect, crosses vein 1 nearer to the termen than the base.

6 (7a). ♂ stigma does not cross vein 3, broad and dark. Upf spots yellow: ♂ cell spot hooked. ♂ F 14 mm. Nudum 17.

doubledayi Felder 1862: ♂ Sydney. Fig Waterhouse 1932.

Synonyms. *leachi* Felder 1862: ♀ Sydney.

vallio Mabille 1883: ♀ Sydney: type B.M.

B.M. 10 ♂ 5 ♀ S. Queensland. 30 ♂ 1 ♀ N. S. Wales. 8 ♂ 2 ♀ Victoria.

7a (6). ♂ stigma crosses vein 3 into space 3.

7 (8a). Upf a spot in space 3. Stigma thin, white. Nudum 13.

rietmanni. 2 sub-species.

(a). Larger, ♂ F 15 mm. Upf without cell or apical spots.

Sub-sp. **parasema** Lower 1908: ♂ Kuranda. Fig Waterhouse 1932.

B.M. 8 ♂ 4 ♀ Queensland.

(b). Smaller, ♂ F 13 mm. Upf with conspicuous cell and apical spots.

Sub-sp. **rietmanni** Semper 1879: ♂ Sydney.
Synonyms. *extranea* Plötz 1884: ♀ N. S. Wales: MS. fig in B.M.
leucostigma Meyrick & Lower 1902: ♂ Mt. Kembla. Fig Waterhouse 1932.
B.M. 3 ♂ 4 ♀ S. Queensland. 1 ♂ 1 ♀ N. S. Wales.

8a (7). Upf unmarked (except ♀ *melania*). Nudum 24.
8 (9a). Unh broadly and sparsely overlaid with white scales. ♂ F 18 mm.
melania Waterhouse 1903: ♂ Cairns. Fig Waterhouse 1932.
B.M. 16 ♂ 4 ♀ N. Queensland.

9a (8). Unh without scaling. ♀ upf unmarked.
9 (10). Unf dorsum broadly whitish. Below, with small spots each consisting of a few shining silver scales, forming a narrow apical band unf, a discal band and sub-basal spots unh. ♂ stigma very narrow and irregular, dark and inconspicuous. ♂ F 18 mm.
arfakensis Joicey & Talbot 1917: ♂ Arfak Mts.: type B.M.
B.M. 1 ♂ type. 3 ♂ Herzog Mts., Dutch New Guinea.

10 (9). Unf dorsum not conspicuously paler. Below, spotting of whitish, not silvery, scales. ♂ stigma dull grey to whitish, conspicuous.
inornatus. 3 sub-species.
(a). Small, ♂ F 15 mm., and browner. Below, spotting usually faint or absent. ♂ stigma narrow, irregular, more or less broken at veins.
Sub-sp. **inornatus** Butler 1883: ♀ Aru: type B.M.
Synonyms. *maykora* Plötz 1885: ♂ Aru. Fig Swinhoe 1908 and in Seitz.
uniformis Swinhoe 1905: ♂ Kei Is: type B.M.
B.M. 8 ♂ 6 ♀ Aru. 2 ♂ Kei.
(b). Similar, but larger, ♂ F 16 mm., and darker. Below usually spotted.
Sub-sp. **sekara** Plötz 1885: ♀ New Guinea. Fig Swinhoe 1908.
Synonym. *damora* Fruhstorfer 1911: ♀ Dutch New Guinea: type B.M.

B.M. 1 ♂ 1 ♀ Mysol. 6 ♂ Arfak Mts. 1 ♂ Weylandt Mts. 1 ♂ 2 ♀ Cyclops Mts. 3 ♂ 3 ♀ Dorey. 3 ♂ 3 ♀ Humboldt Bay. 2 ♂ Ron Is., Geelvink Bay. 1 ♂ 2 ♀ Astrolabe Bay. All Dutch and German New Guinea.

(c). ♂ stigma broader, straighter, continuous. Below paler, spotting variable, but usually with also a postdiscal wavy band of grey, not white, scales. ♂ F 16 mm.

Sub-sp. **anga** nov: ♂ Angabunga River, 6,000 ft.: A. S. Meek: type B.M.

B.M. 1 ♂ Mt. Nisbet. 1 ♀ Mafulu. 1 ♀ Monda. 4 ♀ Kumusi Riv. 3 ♂ 1 ♀ Hydrographer Mts. 7 ♂ 5 ♀ type loc. 15 ♂ 17 ♀ Aroa Riv. 3 ♂ 3 ♀ Mambare Riv. All British New Guinea. 7 ♂ 7 ♀ Goodenough Is. 1 ♂ Sudest Is.

E.10. HESPERILLA Hewitson 1867: type *ornata* Leach: fixed by author.

1a (7a). Uph tawny area does not enter space 1c.

1b (5a). Unh markings consist of well-defined and separated spots.

1c (3a). Unh no cell spot: discal spots small and dark, or absent.

1 (2). Uph paler discal area faint and inconspicuous. ♂ F 17 mm.

malindeva Lower 1911: ♂ Herberton. Fig Waterhouse 1932.

B.M. 6 ♂ 4 ♀ N. Queensland.

2 (1). Uph with conspicuous tawny or orange area. ♂ F 20 mm.

idothea. 2 sub-species.

(a). ♂ above, tawny markings restricted. ♀ upf spots opaque, orange.

Sub-sp. **idothea** Miskin 1889: ♀ Victoria. Fig Waterhouse 1932.

Synonym. *dispar* Kirby 1893: ♂ Victoria: type B.M.

B.M. 2 ♂ 2 ♀ N. S. Wales. 5 ♂ 2 ♀ Victoria.

(b). ♂ above, markings broader. ♀ upf spots hyaline white.

Sub-sp. **clara** Waterhouse 1932: ♂ Mt. Lofty, S.A.

B.M. 3 ♂ S. Australia (Mt. Lofty). 2 ♀ Tasmania.

3a (1c). Unh with cell spot.

3 (4). Unh spots usually small and dark: some may be white-centred.

donnysa. 11 sub-species. See Waterhouse 1941.

(a). ♂ larger, F 16 mm., and darker than *donnysa.* Uph orange area dusky.

Sub-sp. **icaria** Waterhouse 1941: ♂ Burleigh Heads.
B.M. 1 ♂ 1 ♀ type loc., S. Queensland.

(b). As *icaria* but smaller, ♂ F 15 mm. as typical sub-species.

Sub-sp. **samos** Waterhouse 1941: ♂ Blackheath. Fig Waterhouse & Lyell 1914.
B.M. 15 ♂ 2 ♀ Blue Mountains, N. S. Wales.

(c). Orange areas clear, but more restricted than in the southern forms.

Sub-sp. **donnysa** Hewitson 1868: ♂ Moreton Bay (recte Sydney, fide Waterhouse 1941): type B.M. Fig Waterhouse 1927.
B.M. 11 ♂ 7 ♀ N. S. Wales, near Sydney.

(d). Paler and spots larger.

Sub-sp. **patmos** Waterhouse 1941: ♂ Mt. Evelyn. Fig Waterhouse & Lyell 1914.
6 ♂ 7 ♀ Victoria (Melbourne, etc.).

(e). Very much paler and cell spot upf wider.

Sub-sp. **flavescens** Waterhouse 1927: ♂ Altona Bay: figured.
3 ♂ 1 ♀ Victoria (Altona Bay).

(f). Like *donnysa*, but uph tawny area more extensive.

Sub-sp. **diluta** Waterhouse 1932: ♂ Mundoo Is., near Goolwa, S.A.
B.M. 3 ♂ 3 ♀ S. Australia (Belair, Burnside, Algate, Mylor, Pt. Lincoln).

(g). Larger and brighter.

Sub-sp. **delos** Waterhouse 1941: ♂ Mt. Lofty, S.A.
B.M. 7 ♂ 4 ♀ Mt. Lofty, S. Australia.

(h). Pale, like *flavescens*, larger and markings broader.

Sub-sp. **flavia** Waterhouse 1941: ♂ West Beach, near Adelaide.
B.M. 1 ♂ 1 ♀ Henley Beach, S. Australia.

(i). Uph tawny area clear and large.

Sub-sp. **aurantia** Waterhouse 1927: ♂ Tasmania. Fig Waterhouse 1927.

B.M. 26 ♂ 6 ♀ Tasmania. 1 ♀ Banks Coll., "Friendly Is." i.e. Tonga Is.

(j). ♂ upf no spot in space 1b: markings narrow. Unf dorsum dark.

Sub-sp. **albina** Waterhouse 1932: ♂ Bunbury, W.A.

B.M. 10 ♂ 10 ♀ W. Australia (Bunbury).

(k). Upf bases golden, as *flavescens*, but upf no lower spot in space 1b.

Sub-sp. **galena** Waterhouse 1927: ♂ Geraldton, W.A.: figured.

B.M. 1 ♂ W. Australia (Geraldton).

4 (3). Unh spots in spaces 2, 3, 6 and cell more or less conspicuously silvery.

chrysotricha. 4 sub-species.

(a). Small, ♂ F 16 mm. Unh spots large.

Sub-sp. **cyclospila** Meyrick & Lower 1902: ♀ Melbourne (fide Waterhouse 1933). Fig Waterhouse 1932.

Synonym. *leucospila* Waterhouse 1927: ♂ Inverloch: figured.

B.M. 1 ♂ 1 ♀ Victoria (Franklyn).

(b). Uph orange area better defined. Unh spots smaller.

Sub-sp. **leucosia** Waterhouse 1938: ♂ Mt. Compass, S.A.

B.M. 1 ♂ 1 ♀ S. Australia (Mt. Compass).

(c). Paler and smaller.

Sub-sp. **plebeia** Waterhouse 1927: ♂ Bridport, Tasmania: figured.

B.M. None.

(d). Large, ♂ F 18 mm. Unh red-brown, with small spots.

Sub-sp. **chrysotricha** Meyrick & Lower 1902: ♂ Albany. Fig. Waterhouse 1932.

B.M. 11 ♂ 19 ♀ W. Australia (Bunbury, Northampton, Perth, N.W.).

5a (1b). Unh markings consist of broad, ill-defined, dark spots.

5 (6). Unf discal band enters space 1b. Unh grey. ♂ F 16 mm.

chaostola. 3 sub-species.

(a). Darker. Unh markings strongly contrasting with paler ground.

Sub-sp. **chaostola** Meyrick 1887: ♂ Blackheath: type B.M. Fig. Waterhouse 1932.
B.M. 4 ♂ N. S. Wales (Blackheath).
(b). Paler. Unh markings much less conspicuous.
Sub-sp. **chares** Waterhouse 1933: ♂ Beaconsfield.
B.M. 4 ♂ 2 ♀ Victoria (Beaconsfield). 2 ♂ Tasmania.
(c). Smaller and duller, above and below.
Sub-sp. **leucophaea** Couchman 1945: ♂ Tasmania.
B.M. 2 ♂ Tasmania.

6 (5). Unf discal band not entering space 1b. Unh red-brown. ♂ F 15 mm.
andersoni Kirby 1893: ♂ Victoria: type B.M. Fig Waterhouse 1932.
B.M. 4 ♂ 3 ♀ Victoria.

7a (1a). Unh tawny area enters space 1c. Cilia conspicuously chequered.
7a (9a). Unf pre-apical pale band irregular, very broad in spaces 4, 5.
7 (8). Unh marking ferruginous. ♂ F 20 mm.
mastersi Waterhouse 1900: ♂ Sydney. Fig Waterhouse 1932.
B.M. 5 ♂ N. S. Wales.

8 (7). Unh markings black. ♂ F 16 mm.
ornata. 2 sub-species.
(a). Above, markings reduced: absent on ♀ upf.
Sub-sp. **monotherm** Lower 1907: ♀ Kuranda.
B.M. 4 ♂ 1 ♀ N. Queensland (Kuranda).
(b). Above, markings fully developed.
Sub-sp. **ornata** Leach 1815: ♂ Australia: figured. Fig Waterhouse 1932.
B.M. 3 ♂ 3 ♀ S. Queensland. 19 ♂ 15 ♀ N. S. Wales. 1 ♂ 1 ♀ Victoria.

9a (7a). Unf pre-apical pale band regular from vein 4 to costa.
9 (10). Unh veins white to termen. ♂ F 17 mm.

picta Leach 1815: ♀ Australia: figured. Fig Waterhouse 1932.
B.M. 23 ♂ 10 ♀ N. S. Wales.

10 (9). Unh veins not white to termen. Wings rounded.
crypsargyra. 2 sub-species.
(a). Small, ♂ F 13 mm.
Sub-sp. **crypsargyra** Meyrick 1887: ♂ Blackheath: type B.M. Fig Waterhouse 1932.
B.M. 24 ♂ 15 ♀ N. S. Wales (Blue Mts.).
(b). Large, ♂ F 15 mm.
Sub-sp. **hopsoni** Waterhouse 1927: ♂ Barrington Tops: figured.
B.M. 1 ♂ 1 ♀ N. S. Wales (Barrington Tops).

E.11. NEOHESPERILLA Waterhouse & Lyell 1914: type *crocea* Miskin: fixed by authors.

1a (3a). Uph with hyaline spots in spaces 2 and 3 only.
1 (2). ♂ upf brand broad, dark and unbroken. ♀ upf spot in space 1b as conspicuous and solid as other spots. ♂ F 13 mm.
xiphiphora Lower 1911: ♂ Port Darwin. Fig Waterhouse 1932.
B.M. 2 ♂ Groote Eylandt. 4 ♂ 1 ♀ Port Darwin. 1 ♀ Herberton.

2 (1). ♂ upf brand narrow, dark, broken at veins. ♀ upf spot in space 1b never as conspicuous or solid as other spots. ♂ F 15 mm.
crocea Miskin 1889: ♂ Cooktown. Fig Waterhouse 1932.
Synonym. *satulla* Mabille 1891: ♀ Cooktown.
B.M. 1 ♂ 1 ♀ Brock's Creek. N,T. 18 ♂ 27 ♀ N. Queensland.

3a (1a). Uph without hyaline spots.
3 (4). Uph with white spots in spaces 3, 6 and cell. Unh with a complete row of discal spots. ♂ F 14 mm.
senta Miskin 1891: ♀ Herberton. Fig Waterhouse 1932.
B.M. 2 ♂ 3 ♀ Eureke, N.T. 11 ♂ 14 ♀ N. Queensland.

4 (3). Uph with a dull yellow central area. Unh unmarked: ♂ with rather sparse greenish scaling: ♀ yellow. ♂ F 15 mm.

xanthomera Meyrick & Lower 1902: ♂ Townsville. Fig Waterhouse 1932.
B.M. 1 ♀ Brock's Creek. N,T. 4 ♂ 4 ♀ Queensland (Vermont, Brisbane, Duaringa).

E.12. SIGNETA Waterhouse & Lyell 1914: type *flammeata* Butler: fixed by authors.

1 (2). ♂ upf with yellow spots in cell, space 2 and at apex. ♀ upf with spots in spaces 2, 3 and cell conjoined. ♂ F 16 mm.

flammeata Butler 1882: ♀ Melbourne: type B.M. Fig Waterhouse 1932.
Synonyms. *eclipsis* Butler 1882: ♂ Melbourne: type B.M. *atromacula* Miskin 1889: ♂ Brisbane.
B.M. 1 ♂ 1 ♀ S. Queensland. 24 ♂ 8 ♀ N. S. Wales. 12 ♂ 5 ♀ Victoria.

2 (1). ♂ upf unmarked except for an apical dot. ♀ upf with the cell spot widely separated from those in spaces 2 and 3. ♂ F 15 mm.

tymbophora Meyrick & Lower 1902: ♂ Mt. Kembla. Fig Waterhouse 1932.
B.M. 4 ♂ 2 ♀ N. S. Wales (Mt. Kembla, Stanwell Park).

E.13. PASMA Waterhouse 1932: type *tasmanica* Miskin: fixed by author.

1 (2). Upf without spots in spaces 4 and 5. Uph with hyaline spots in spaces 2 and 3. Unh grey scaled, with small dark spots. ♂ F 12 mm.

tasmanica Miskin 1889: ♂ Tasmania. Fig Waterhouse 1932.
Synonym. *comma* Kirby 1893: ♂ Victoria: type B.M.
B.M. 6 ♂ 5 ♀ N. S. Wales. 4 ♂ 1 ♀ Victoria. 9 ♂ 6 ♀ Tasmania.

2 (1). Upf with spots in spaces 4 and 5. Uph without hyaline spots. Unh with a complete discal row of white spots. ♂ F 14 mm.

polysema Lower 1908: ♂ Port Darwin: type B.M. Fig Waterhouse 1932.
B.M. 1 ♂ Port Darwin. 1 ♀ Groote Eylandt.

E.14. MOTASINGHA Watson 1893: type *dirphia* Hewitson: fixed by author.

1 (2). Unh with silver spots. Upf without spots in spaces 4 and 5.

dirphia. 4 sub-species.
(a). Unh reddish brown: silver cell spot large. ♂ F 18 mm.
Sub-sp. **dilata** Waterhouse 1932: ♂ Waverley, N.S.W. Fig Waterhouse 1932.
B.M. 4 ♂ 4 ♀ S. Queensland. 18 ♂ 12 ♀ N. S. Wales.
(b). Smaller, ♂ F 17 mm., and darker.
Sub-sp. **dea** Waterhouse 1933: ♂ Blackheath.
B.M. 2 ♂ N. S. Wales, Blue Mts.
(c). Like *dilata*, but unh spots smaller, discal spots more often silver.
Sub-sp. **trimaculata** Tepper 1881: ♂ Ardrossan: figured.
Synonym. *quadrimaculata* Tepper 1881: ♀ Ardrossan: figured.
B.M. 3 ♂ 1 ♀ S. Australia.
(d). Unh grey brown. ♂ upf stigma more disjointed. ♀ upf no inner spot in space 1b. Uph discal spot absent. ♂ F 20 mm.
Sub-sp. **dirphia** Hewitson 1868: ♀ Swan R.: type B.M. Fig. Waterhouse 1932.
B.M. 18 ♂ 3 ♀ W. Australia.

2 (1). Unh with large ill-defined dark spots. Upf spots in spaces 4, 5.

atralba. 5 sub-species.
(a). ♂ upf stigma very narrow, broken, not extending below vein 1. ♂ upf with white spots in spaces 2 and 3, and often one or two in space 1b. Cilia much more conspicuously chequered. ♂ F 15 mm.

Sub-sp. **atralba** Tepper 1881: ♀ Ardrossan: figured. Fig Waterhouse 1932.
B.M. 14 ♂ 11 ♀ S. Australia (Port Noarlunga, Port Lincoln).
(b). ♂ upf stigma very broad, with a very narrow extension below vein 1. ♂ upf no spots in spaces 1b or 2. ♂ F 17 mm.

Sub-sp. **anaces** Waterhouse 1937: ♂ Hamel. Fig Waterhouse 1932 as *dactyliota*.
B.M. 3 ♂ 2 ♀ W. Australia (Hamel, Waroona).
(c). Smaller, ♂ F 14 mm.

Sub-sp. **dactyliota** Meyrick 1887: ♂ Geraldton: type B.M.
B.M. 1 ♂ W. Australia.
(d). Upf spots smaller. Unh spots more distinct.

Sub-sp. **anapus** Waterhouse 1937: ♂ Stirling Ranges, W.A.
B.M. None.
(e). Unh much darker, yellowish brown with markings obscured.

Sub-sp. **nila** Waterhouse 1932: ♂ Dirk Hartog Is., W.A.
B.M. 1 ♂ 1 ♀ W. Australia (Dirk Hartog Is.).

E.15. MESODINA Meyrick 1901: type *halyzia* Hewitson: fixed by author.

1 (2). Upf spots white. ♂ F 16–18 mm.

halyzia. 2 sub-species.
(a). ♂ upf apical spots absent. Unh grey-brown.

Sub-sp. **halyzia** Hewitson 1868: ♂ Port Denison: type B.M. Fig Waterhouse 1932.
B.M. 29 ♂ 7 ♀ N. S. Wales.
(b). ♂ upf apical spots present. Unh bluish grey.

Sub-sp. **cyanophracta** Lower 1911: ♂ Perth. Fig Waterhouse 1932.
B.M. 19 ♂ 6 ♀ W. Australia (Perth, Bunbury).

2 (1). Upf spots yellow. Unf cell yellow. ♂ F 17 mm.

aeluropis Meyrick 1901: ♂ Katomba: type B.M. Fig Waterhouse 1932.
B.M. 14 ♂ 5 ♀ N. S. Wales.

E.16. CROITANA Waterhouse 1932: type *croites* Hewitson: fixed by author.

croites. 2 sub-species.
(a). Above markings broad. ♂ F 13 mm.
Sub-sp. **croites** Hewitson 1874: ♀ Carnarvon: type B.M. Fig Waterhouse 1932.
B.M. 1 ♂ 1 ♀ Carnarvon. 33 ♂ 5 ♀ Bunbury—W. Australia.
(b). Above markings reduced. ♂ upf no spot in space 1b: uph orange band one third of wing. Unh brown with a pale discal band and a cell spot. ♂ 12 mm.
Sub-sp. **pindar** Waterhouse 1932: ♂ Pindar, W.A.
B.M. 1 ♂ Hermannsburg, Central Australia.

F.1. LEPTALINA Mabille 1904: type *unicolor* Bremer & Grey: fixed by Lindsey 1925.

Single species unmarked above: unh shaded ochreous, with 2 more or less conspicuous radial white streaks. ♂ F 16 mm.
unicolor Bremer & Grey 1853: near Peking. Fig Seitz I.
Synonym. *ornatus* Bremer 1861: E. Siberia. Fig Bremer 1864.
B.M. 33 ♂ 15 ♀ Japan. 11 ♂ 7 ♀ Amur. 13 ♂ 2 ♀ Hupeh.

F.2. CARTEROCEPHALUS Lederer 1852: type *palaemon* Pallas: fixed by Scudder 1875 as *paniscus* Fabricius, which is a synonym of *palaemon*.
Synonyms. *Aubertia* Oberthür 1896: type *dulcis* Oberthür: fixed by Lindsey 1925.
Pamphilida Lindsey 1925 to replace *Carterocephalus* incorrectly (see Hemming 1934) considered to be a synonym of *Steropes* Boisduval.

1a (7a). Uph the pale central spot is placed beyond end cell and is nearer to termen than to base. Above, markings tawny or yellow. Unh disconnected central spots in spaces 1c (if present), 2 and 4–5 run parallel to termen and at lower end are directed to the dorsum well above the tornus.

1b (6). Above, markings broadly orange or yellow.
1c (4a). Upf spot at base of space 1b inconspicuous or conjoined to the basal cell spot.
1d (3). Unh veins before termen conspicuously darkened.
1 (2). Uph no tawny spot mid costa. F costa slightly concave.

palaemon. 3 sub-species.

(a). Above antennae chequered black and yellow. ♂ F 14 mm.

Sub-species **palaemon** Pallas 1771: Europe. Fig Seitz I.

Synonyms. *paniscus* Fabricius 1775. *brontes* Schiffermüller 1776: Europe. *mesapano* Scudder 1868. *skada* Edwards 1870.

European varieties. *melicertes* Schulz 1902. *aurantia*, *circumcincta*, *esperi*, *excessa*, *luteo-excessa*, *lutea-restricta*, *restricta* Tutt 1906. *conjuncta* Blachier 1910. *freyi* Hallweger 1914. *nigra* Durenne 1919. *habeneyi* Siegel 1921. *ederi* Schawerda 1924. *confluens* Osthelder 1924. *luteana* Cabeau 1926. *carrueli* Le Charles 1927. *extrema* Dieszgheny 1930. *bolleni* Durenne 1936. *depuncta*, *pulchra* Carruel 1939. *infralba* Verity 1940.

B.M. 148 ♂ 75 ♀ England and Scotland. 43 ♂ 4 ♀ France. 1 ♂ Belgium. 10 ♂ 7 ♀ Switzerland. 12 ♂ 13 ♀ Germany. 15 ♂ 6 ♀ Austria. 3 ♂ 2 ♀ Hungary. 7 ♂ Bulgaria. 5 ♂ 3 ♀ Russia. 1 ♀ Greece. 1 ♂ Finland. 1 ♀ Spitzbergen (46 ♂ 7 ♀ N. America).

(b). Antennae above white, faintly black chequered in ♂. Smaller, ♂ 13 mm. Darker, due to reduction of yellow markings: unh pale spots white.

Sub-sp. **albiguttata** Christoph 1893: Vilui.

Synonyms. *brontides* Rühl 1895 = *albiguttata*. *murasei* Matsumura 1925: ♂ S. Saghalien.

B.M. 3 ♂ 1 ♀ N. Russia. 1 ♂ Persia. 1 ♂ Irkut. 2 ♂ E. Sajan. 4 ♂ 1 ♀ Altai. 2 ♀ Trans-Baikal. 3 ♂ Amur. 1 ♂ Askold. 2 ♂ 1 ♀ Apfelgebirge. 3 ♂ Chingan Mts. 3 ♂ Sichota-Alin Mts.

(c). Large, ♂ F 15 mm. Darker due to obsolescence of submarginal markings, above: discal markings upf broader, conjoined to spot end cell. Antennae as in *palaemon*.

Sub-sp. **satakei** Matsumura 1919: ♂ Honshiu: figured.
B.M. 2 ♂ Japan.

2 (1). Uph with a conspicuous spot mid costa. ♂ F 14 mm. F costa convex.

silvicola Meigen 1828: ♂ Europe: figured. Fig Seitz I as *silvius*.
Synonyms. *silvius* Knoch 1781: Europe. Homonym of *sylvius* Poda 1761.
catella Schulz 1901. *pseudopalaemon* Fritsch 1912. *evanescens* and *atrolimbata* Heinrich 1916. *fasciata* Schröder 1917. *silvioides* Müller 1920: Germany.
isshikii Matsumura 1925: Saghalien.
shikotana Nakahara 1926: Kurile Is.
doii Matsumura 1928: Kurile Is.
B.M. 12 ♂ 6 ♀ Norway. 47 ♂ 33 ♀ Germnay. 10 ♂ 4 ♀ Russia. 2 ♂ Irkut. 1 ♂ E. Sajan. 12 ♂ Altai. 2 ♂ Trans-Baikal. 5 ♂ Amur. 1 ♂ Manchuria. 1 ♀ Saghalien. 2 ♂ Kamschatka. 4 ♂ Chingan Mts. 5 ♂ 2 ♀ Sichota–Alin Mts. 5 ♂ 2 ♀ Apfelgebirge.

3 (1d). Unh veins towards termen not darkened. ♂ F 15 mm. F costa convex.

houangty. 3 sub-species.
(a). ♂ above, tawny areas predominate. Unh tawny, black spots sparse.

Sub-sp. **houangty** Oberthür 1886: ♂ Ta Tsien Lou: figured: type B.M. Fig Seitz I.
B.M. 42 ♂ 12 ♀ W. China (Ta Tsien Lou area). 1 ♂ N. Yunnan.
(b). ♂ above, tawny and black areas equal. Unh dark shaded, showing up the tawny markings.

Sub-sp. **shoka** Evans 1914: ♂ Po Chu Valley, S.E. Thibet: type B.M.: figured.
B.M. 12 ♂ 2 ♂ S.E. Thibet. 2 ♂ "Upper Burma, Yunnan exped., Kingdon–Ward".
(c). ♀ unh entirely dark shaded obscuring the markings, leaving a yellowish grey streak from base through cell towards termen and a similar triangular lower discal area, recalling *abax*. Upf discal tawny band conjoined to cell spot. Uph with a tawny spot in space 6 near termen.

Sub-sp. **bootia** nov: ♀ Gyatsa, Bhutan: 9,000 ft.: 18th July 1922: F. M. Bailey: type B.M.
B.M. 2 ♀ Bhutan (type loc. and Bumtang, 10,000 ft.: 26th July 1922: F. M. Bailey).

4a (1c). Upf spot at base of space 1b conspicuous and detached, as large as the spots end cell and in space 2. F costa convex.
4 (5). Unh spotted as in *silvius*. Above as *abax*. ♂ F 13 mm.
***alcina** Evans 1939: ♂ Teng-Yueh-Ting, Yunnan: type B.M.
B.M. 29 ♂ 7 ♀ Yunnan. 16 ♂ 1 ♀ N. Burma (Sadon, Kambaiti).

5 (4). Unh without spots; with 2 pale radial streaks, from base through cell to termen and in space 1c. Above with broad tawny markings. Hind tibiae with 2 pairs of spurs. ♂ F 14 mm.
abax. 2 sub-species.
(a). Unh the streaks whitish: veins dark.
Sub-sp. **abax** Oberthür 1886: ♂ Ta Tsien Lou: type B.M.: figured. Fig Seitz I.
B.M. 66 ♂ 3 ♀ W. China (Ta Tsien Lou area).
(b). Unh the streaks silver: veins not dark.
Sub-sp. **patra** Evans 1939: ♂ N. Yunnan: co-type B.M.
B.M. 2 ♂ type loc.

6 (1b). Above, markings narrow, pale yellow: very like *Taractrocera danna*. Unh with silver markings, including a divided central radial streak from base through cell. ♂ F 12 mm. F costa concave.
pulchra. 2 sub-species.
(a). Uph no cell spot and submarginal markings conspicuous.
Sub-sp. **ops** Groum Grshimaïlo 1891: ♂ N.E. Thibet, Dangar Mts.
B.M. 4 ♂ 6 ♀ N.E. Thibet (Amdo).
(b). Uph with cell spot. Unh markings much more conspicuous.

Sub-sp. **pulchra** Leech 1891: ♀ Ta Tsien Lou: type B.M.: figured. Fig Seitz I.
B.M. 19 ♂ 8 ♀ W. China (Ta Tsien Lou area).

7a (1a). Uph the pale central spot mid base and termen. Unh all marking silvery: central spots in spaces 1c, 2, 4–5 and 6 form a more or less continuous band, directed to tornus. F costa concave.
7b (9a). Upf with a broad sub-apical band from space 4 to space 8.
7 (8). Upf with an apical yellow streak. Uph with a yellow sub-basal spot. ♂ F 12 mm.
argyrostigma Eversman 1851: Amur. Fig Nordman 1851; Seitz I.
Synonym. *argenteogutta* Butler 1870: ♂ "Nubia": type B.M.
B.M. 17 ♂ 4 ♀ Amut. 2 ♂ Nian Shan. 1 ♂ Shan Si. 1 ♂ Chengai Mts. 14 ♂ 2 ♀ Altai. 5 ♂ E. Sajan. 13 ♂ 7 ♀ N.E. Thibet (Amdo, Kukunor). 3 ♂ N. of Vladivostok.

8 (7). Upf no apical yellow streak. Uph no sub-basal yellow spot.
avanti. 3 sub-species.
(a). Upf markings orange and irregular. Uph central orange spot triangular. ♂ F 11 mm.
Sub-sp. **avanti** De Nicéville 1886: ♂ Chumbi Valley, Sikkim: type B.M.: figured. Fig Lep Ind.
B.M. 3 ♂ 1 ♀ Garhwal. 4 ♂ Sikkim, Chumbi Valley. 1 ♂ Bhutan. 1 ♂ Yatung, S. Thibet. 11,000–14,000 ft.
(b). Upf markings pale yellow, parallel and regular. Uph central spot inwardly concave. ♂ F 12 mm.
Sub-sp. **flavostigma** Oberthür 1908: ♂ Ta Tsien Lou: type B.M.: figured. Fig Seitz I Supp.
Synonym. *montana* South 1913: ♂ Litang, E. Thibet: type B.M.
B.M. 4 ♂ W. China (Ta Tsien Lou). 1 ♂ W. Szechwan (Chentze). 1 ♂ E. Thibet. 3 ♂ S.E. Thibet (Molo, Kyimdong Dzong).
(c). Like *flavostigma*, but uph with a dull orange area outwardly adjoining the central spot. Upf sub-basal band

not extending into space 1b. Unh no silver sub-basal spot. ♂ F 13 mm.

Sub-sp. **ensis** Evans 1939: ♂ Li-kiang, N. Yunnan: co-type B.M.

B.M. 8 ♂ 1 ♀ type loc.

9a (7b). Upf sub-apical markings narrow, white or very pale yellow, those in spaces 4 and 5 separate from those in spaces 6 to 8.

9 (10a). Upf white spot in space 2 smaller than the cell spot and widely separated therefrom, more or less midway between the cell spot and the sub-apical spots.

dieckmanni. 4 sub-species.

(a). Unh central band irregular and obviously composed of conjoined spots: sub-basal cell spot large. H cilia white. ♂ F 13 mm.

Sub-sp. **dieckmanni** Graeser 1888: Amur. Fig Seitz I.

B.M. 21 ♂ 3 ♀ N.E. Thibet (Amdo, Kukunor). 1 ♂ Chingan Mts. 1 ♂ Amur. 5 ♂ N. of Vladivostok. 2 ♂ Shen Si, N. China.

(b). Unh central band inwardly regular and much more like a band: sub-basal cell spot smaller. Uph spot end cell narrow. ♂ F 14 mm.

Sub-sp. **gemmatus** Leech 1891: ♂ Ta Tsien Lou: type B.M. Fig. Leech 1895.

Synonyms. *demea* Oberthür 1891: ♂ Ta Tsien Lou: type B.M.: figured.

plutus Oberthür 1891: ♂ Ta Tsien Lou: type B.M.: figured.

B.M. 52 ♂ 6 ♀ W. China (Ta Tsien Lou area). 26 ♂ Yunnan. 4 ♂ E. Thibet (Batang, Zayul, Atakang).

(c). Similar to *dieckmanni*, but smaller, ♂ F 12 mm. Uph spot end cell narrower. Unh band centrally more prolonged outwards at vein 4, nearly to the submarginal band.

Sub-sp. **minor** Evans 1932: ♂ Po Chu, S.E. Thibet: type B.M.

B.M. 11 ♂ S.E. Thibet.

(d). Similar to *gemmatus*, but not so dark. Unh silver bands more regular, particularly the lower part of the outer band, the inner edge of which is continuous from vein 6 to vein 2, not indented between veins 4 and 6 as in other sub-species, to correspond with the projecting tooth in space 4–5 from the outer edge of the central band. ♂ F 13 mm.

Sub-sp. **watsoni** Evans 1932: ♂ Chin Hills, N. Burma: type B.M.
B.M. 6 ♂ 2 ♀ type loc.

10a (9). Upf spot in space 2 contiguous to the cell spot.
10 (11a). Upf spots in spaces 1b and 2 form a narrow bar, the inner edge of which is more or less against the outer edge of the narrow cell spot: no white spot at base. Unh central band unbroken. ♂ F 12 mm.

micio Oberthür 1891: ♀ Tsekou: type B.M.: figured.
B.M. 6 ♂ 2 ♀ W. China (Ta Tsien Lou area). 4 ♂ E. Thibet. 10 ♂ N. Yunnan. 13 ♂ W. Szechwan.

11a (10). Upf spots in space 2 and cell one above the other: the spot in space 1b absent, small, or set obliquely. ♀ upf markings pale yellow: band continued into space 1b. Unh band made up of conjoined spots. ♂ F 14 mm.
11 (12a). ♂ upf with a white spot at base costa over a basal cell spot. ♀ upf with a sub-basal cell spot, but unf no pale line at end of cell.

christophi. 2 sub-species.
(a). Upf basal cell and costal spots sub-equal. Uph central spots conjoined.

Sub-sp. **christophi** Groum Grshmaïlo 1891: ♂ Sinin Mts. Fig Seitz I: ♀ fig (enlarged) Elwes & Edwards 1897, pl. 19/23, as *niveomaculatus* ♀.
Synonyms. *dulcis* Oberthür 1896: ♂ Ta Tsien Lou: type B.M.: figured.
canopunctatus Nabokov 1941: ♂ Ta Tsien Lou.
B.M. 25 ♂ 5 ♀ N.E. Thibet (Amdo, Kukunor). 6 ♂ W. China (Ta Tsien Lou). 10 ♂ N. Yunnan. 5 ♂ W. Szechwan.
(b). Above, markings reduced. Upf basal cell spot reduced or absent. Uph central spots separate and lower one may be absent.

Sub-sp. **tibetanus** South 1913: ♂ Gonse, S.E. Thibet: type B.M.
B.M. 8 ♂ S.E. Thibet.

12a (11). ♂ upf no basal costal spot.
12 (13). ♂ upf markings white: band continued into space 1b. ♀ upf no basal cell spot.

niveomaculatus Oberthür 1886: ♂ Ta Tsien Lou: type B.M.: figured. Fig Seitz.
B.M. 46 ♂ 4 ♀ W. China (Ta Tsien Lou). 3 ♂ 1 ♀ N. Yunnan. 8 ♂ 1 ♀ W. Szechwan.

13 (12) ♂ ♀ above, markings pale yellow and narrow. ♀ upf with a basal cell spot and unf with end of cell conspicuously marked.

flavomaculatus Oberthür 1886: ♂ Ta Tsien Lou: type B.M.: figured. Fig Seitz.
Synonym. *postnigra* South 1913: ♂ Batang, S.E. Thibet: type B.M.
B.M. 47 ♂ 3 ♀ W. China (Ta Tsien Lou). 1 ♂ N. Yunnan. 2 ♂ 1 ♀ S.E. Thibet. 16 ♂ W. Szechwan.

F.3. HETEROPTERUS Dumeril 1806: type *morpheus* Pallas: fixed by Kirby 1870 as *aracinthus* Fabricius, which is a synonym of *morpheus*.
Synonym. *Cyclopides* Hübner 1819: type *morpheus* Pallas: fixed by Butler 1870 as *steropes* Schiffermüller, which is a synonym of *morpheus*.

Single species characterised by the numerous black-ringed silver spots on the ochreous unh. ♂ F 17 mm.

morpheus Pallas 1771: Europe. Fig Seitz I.
Synonyms. *speculum* Rottenburg 1775: Europe.
steropes Schiffermüller 1775: Europe. Fig Esper 1778.
operculum von Rottenburg 1776: Europe.
aracinthus Fabricius 1777: Europe.
speculifer Fourcroy 1785: Europe.
Varieties. *phantasos* Stichel 1900. *radiata* Kolisko 1905. *obscura* and *atrolimbata* Skala 1912. *obsoleta* Fritsch 1912. *axniensis* Dannehl 1925. *coreana* Matsumura 1927. *minutus* Lempke 1936. *aquitainensis* and *separata* Pionneau 1938.
B.M. 53 ♂ 34 ♀ S. France. 13 ♂ 3 ♀ Germany-Hungary. 1 ♂ Bosnia. 1 ♂ Polish Ukraine. 11 ♂ 1 ♀ Turkey. 3 ♂ Asia Minor. 1 ♂ 1 ♀ Altai. 3 ♂ Baikal, Irkutsk.

3 ♂ 1 ♀ Kalnik, Siberia. 4 ♂ 2 ♀ Amur. 4 ♂ 1 ♀ Manchuria. 7 ♂ 8 ♀ Korea. 2 ♂ Shan Si.

F.4. BARCA De Nicéville 1902: type *bicolor* Oberthür: fixed by author.
Synonym. *Dejeania* Oberthür 1896: type *bicolor* Oberthür: sole species included: homonym by Robineau-Desvoidy 1830.

Single species. ♂ black: upf a broad yellow band marked by a black bar defining end of cell: unh a narrow central yellow band. ♂ F 22 mm. ♀ unknown.
bicolor Oberthür 1896: ♂ W. China: type B.M.: figured. Fig Seitz I.
B.M. 94 ♂ W. Szechwan, Ta Tsien Lou area. 5 ♂ Fukien. 5 ♂ Tonkin.

F.5. APOSTICTOPTERUS Leech 1894: type *fuliginosus* Leech: sole species included.
Synonym. *Tecupa* Swinhoe 1917: type *curiosa* Swinhoe: fixed by author.

Single species. Brown, unmarked.
fuliginosus. 2 sub-species.
(a). Smaller and paler, ♂ F 28 mm.
Sub-sp. **fuliginosus** Leech 1894: ♂ China: type B.M.: figured. Fig Seitz I.
B.M. 30 ♂ 1 ♀ W. Szechwan, Ta Tsien Lou area.
(b). Larger and darker, ♂ F 30 mm.
Sub-sp. **curiosa** Swinhoe 1917: ♂ Naga Hills: type B.M.
B.M. 28 ♂ 2 ♀ Manipur and Naga Hills, Assam.

G.1. ASTICTOPTERUS Felder 1860: type *jama* Felder: fixed by Butler 1870.

Single species.
jama. 3 sub-species.
(a). Small, ♂ F 15 mm. Apex F and tornus H more rounded. Below grey scaling more intense. WSF upf unmarked and unh uniform dark grey. DSF upf with hyaline white apical spots and unh variegated with sandy reddish scaling.

Sub-sp. **chinensis** Leech 1890: ♂ Ichang (DSF): type B.M. Synonym. *nubilus* Mabille 1891: ♂ Hong Kong (DSF). B.M. 17 ♂ 10 ♀ (DSF) 17 ♂ 10 ♀ (WSF) China (Hupeh, Honan, Fukien, Kwang Tung, Kiang Si).

(b). Larger ♂ F 16–17 mm. Apex F and tornus H more produced. WSF and DSF as above, but ♀ WSF sometimes has 2 apical spots upf.

Sub-sp. **olivascens** Moore 1878: ♀ Salween (WSF): type B.M. Fig Lep Ind, pl. 788/2 ♂ ♀.

Synonyms. *henrici* Holland 1887: ♂ Hainan (DSF): figured. Fig Elwes & Edwards, pl. 18/17 ♂.

kada Swinhoe 1893: ♂ Assam (DSF): type B.M. Fig Lep Ind, pl. 788/3 ♂ ♀.

tonkinianus Fruhstorfer 1910: ♀ Annam (DSF): type B.M.

permagnus Fruhstorfer 1910: ♀ Tonkin (WSF): type B.M.

quadripunctatus Swinhoe 1915: ♀ Assam (WSF): type B.M.

B.M. 2 ♂ 1 ♀ Sikkim and Bhutan (WSF). 20 ♂ 20 ♀ (WSF) 15 ♂ 20 ♀ (DSF) Assam. 10 ♂ 11 ♀ (WSF) 8 ♂ 18 ♀ (DSF) Burma. 1 ♂ 1 ♀ (WSF) 16 ♂ 2 ♀ (DSF) Siam. 2 ♂ 1 ♀ (WSF) Yunnan. 1 ♀ (WSF) Andamans. 1 ♂ 1 ♀ (WSF) 2 ♀ (DSF) Hainan. 9 ♂ 8 ♀ (WSF) 7 ♂ 5 ♀ (DSF) Indo-China.

(c). Only the dark wet season form, unmarked, ♂ F 17 mm. Apex F and tornus H rather more rounded. Below rather paler and on F grey scaling almost absent.

Sub-sp. **jama** Felder 1860: ♂ Malacca. Fig Elwes & Edwards 1897; Rhop Java.

Synonyms. *pulligo* Mabille 1876: ♂ Java.

melania Plötz 1885: ♂ Malacca. Fig Swinhoe 1908.

B.M. 11 ♂ 11 ♀ Malaya. 17 ♂ 8 ♀ Sumatra. 15 ♂ 8 ♀ Java. 1 ♂ 1 ♀ "Philippines"?

G.2. ARNETTA Watson 1893: type *atkinsoni* Moore: fixed by author.

1a (4). Upf brown with white spots.

1 (2a). Upf only with conspicuous conjoined hyaline white apical spots, no discal spots. Unh varies from dark brown, sparsely overlaid with dark ochreous scales

(WSF), to a variegated form (DSF) with central and submarginal grey scaling. ♂ F 15 mm. Resembles *Asticto-pterus jama* DSF. Uncus undivided.

mercara Evans 1932: ♂ Mercara, Coorg: type B.M.
B.M. 9 ♂ 4 ♀ S. India (Travancore, Coorg, Malabar, Nilgiris).

2a (1). Upf with discal spots in spaces 2 and 3 as well as apical spots, and sometimes a cell spot and a spot in space 1b, which does not appear unf. With 2 sharply marked seasonal forms.

2 (3). ♂ without secondary sexual characters. Uncus undivided. Upf cell spot small or absent: usually a spot in space 1b against vein 1.

vindhiana. 2 sub-species.

(a). Comparatively large, ♂ F 15–17 mm. WSF unh uniform dull dark ferruginous with more or less developed pale yellow dots in and above cell and on disc. DSF unh lighter, usually with a dark discal band or spots and more or less variegated with sandy scaling.

Sub-sp. **nilgiriana** Moore 1883: ♂ (DSF) Nilgiris: type B.M.
DSF Fig Elwes & Edwards 1897; Lep Ind; Seitz.
B.M. 1 ♂ (WSF) Travancore. 6 ♂ (WSF) Palni Hills. 6 ♂ 5 ♀ (WSF), 8 ♂ 2 ♀ (DSF) Nilgiris (where it meets *vindhiana*).

(b). Smaller, ♂ F 14 mm. WSF unh somewhat sparsely overlaid with greenish ochreous scales and small white discal spots. DSF similar to *nilgiriana*, but smaller and more variable.

Sub-sp. **vindhiana** Moore 1883: ♂ Jabalpur (WSF): type B.M. WSF fig Lep Ind, pl. 801/1.
B.M. 6 ♂ 1 ♀ (WSF), 2 ♂ (DSF) Nilgiris. 17 ♂ 9 ♀ (WSF), 21 ♂ 14 ♀ (DSF) Coorg. 9 ♂ 12 ♀ (DSF) N. Kanara. 3 ♂ 3 ♀ (WSF), 10 ♂ 6 ♀ (DSF) W. Ghats. 1 ♂ (WSF) Mt. Abu. 2 ♂ (DSF) Matheran. 5 ♂ (WSF) Centr. Prov.

3 (2). ♂ unf with a tuft of black hairs mid dorsum. Uncus divided. Upf cell spot conspicuous, no spot in space 1b. WSF unh dark with numerous small white spots. DSF unh sandy to ferruginous with white or dark spots, very variable. ♂ F 16 mm.

atkinsoni Moore 1878: ♂ Sikkim (WSF): figured. Fig Elwes 1888, ♂ DSF; Lep Ind WSF and DSF.
Synonyms. *khasianus* Moore 1878: ♂ Khasi Hills (DSF): type B.M.
subtestaceus Moore 1878: ♂ Tenasserim (DSF): type B.M.
parnaca Fruhstorfer 1910: ♂ Tonkin (DSF): type B.M.
B.M. 14 ♂ 2 ♀ (WSF), 22 ♂ 3 ♀ (DSF) Sikkim. 18 ♂ 3 ♀ (WSF), 22 ♂ 6 ♀ (DSF) Assam. 21 ♂ 5 ♀ (WSF), 25 ♂ 10 ♀ (DSF) Burma (to Tavoy). 4 ♂ (DSF) Siam. 2 ♂ (DSF) Tonkin.

4 (1a). Unmarked except for an orange apical patch unf. ♂ unf with a tuft of hairs mid dorsum. ♂ F 14 mm.

***verones** Hewitson 1878: ♂ Sumatra: type B.M. The figures in Rhop Java and Seitz are of *Koruthaialos rubecula verona.*
Synonym. *kala* Evans 1932: ♂ Sumatra: type B.M. Orange patch absent, probably rubbed off.
B.M. 1 ♂ Pen Siam. 1 ♂ 2 ♀ Malaya. 2 ♂ 1 ♀ Sumatra. 3 ♂ Borneo.

G.3. OCHUS De Nicéville 1894: type *subvittatus* Moore: fixed by author.

Single species. Above nearly black, unmarked except for a more or less well-developed yellow spot at apex F. Below with apex and costa F and all H bright yellow with numerous black streaks or spots. ♂ F 11–12 mm.

subvittatus. 2 sub-species.
(a). Unh grading from a streaked to a spotted form. In the streaked form, the dark markings in space 7 unh in ♂ are conjoined to a single long streak: in the spotted form there are 3 spots: ♀ always spotted.
Sub-sp. **subradiatus** Moore 1878: ♀ Khasi Hills: type B.M. Fig Lep Ind.
B.M. 35 ♂ Sikkim. 29 ♂ 3 ♀ Assam.
(b). Unh ♂ ♀ spotted: the streaked form absent.
Sub-sp. **subvittatus** Moore 1878: ♂ Moulmein: type B.M.

Synonym. *intricatus* Fruhstorfer 1910: ♂ Tonkin: type B.M.

B.M. 4 ♂ N. Shan St. 1 ♂ Sadon, N. Burma. 1 ♀ S. Shan St. 4 ♂ 3 ♀ Karens. 2 ♂ 1 ♀ Moulmein. 4 ♂ 2 ♀ Yunnan (Manhao). 7 ♂ 1 ♀ Tonkin.

G.4. BARACUS Moore 1881: type *vittatus* Felder: fixed by author.

Single species.

vittatus. 5 sub-species.

(a). ♂ upf and uph, ♀ uph, mostly greenish white: other sub-species are brown. Unf discal spots present or absent. Unh with more or less conspicuous whitish radial streaks through cell and space 1c. ♂ F 15 mm.

Sub-sp. **vittatus** Felder 1862: ♂ Ceylon: type B.M. Fig Lep Ceylon; Lep Ind; Seitz.

Synonym. *eaclis* Mabille 1882: ♀ "Australia": type B.M.

B.M. 32 ♂ 20 ♀ Ceylon.

(b). Upf markings dull. Unh ochreous brown with the whitish radial streaks conspicuous. Unf apical spots absent or faint.

Sub-sp. **subditus** Moore 1883: ♀ Nilgiris: type B.M. Fig Lep Ind.

B.M. 2 ♂ Travancore. 15 ♂ 3 ♀ Palni Hills. 17 ♂ 2 ♀ Nilgiris.

(c). ♂ unf with conspicuous pale yellow spots in spaces 2 and 3: often present in *vittatus*, rarely in *hampsoni*, absent in the rest. Above marked as *hampsoni*. Unf costa and apex and unh as in *subditus*, but paler and pale radial streaks obsolete. ♂ unknown.

Sub-sp. **gotha** nov: ♀ Animalai Hills: type B.M.

B.M. 2 ♀ Animalai Hills.

(d). Upf pale yellow discal and apical spots clear and often a spot in space 1b. Unf apical spots (rarely discal) sharply defined. Unh pale radial streaks obsolete, but with brown central and submarginal spots on a paler, yellowish, ground. In the Nilgiris it intergrades with *subditus*.

Sub-sp. **hampsoni** Elwes & Edwards 1897: ♂ N. Kanara: type B.M. Fig Lep Ind.

B.M. 1 ♂ Travancore. 2 ♂ Mysore. 6 ♂ 6 ♀ Coorg. 4 ♂ 3 ♀ Nilgiris. 16 ♂ 16 ♀ N. Kanara.

(e). Larger, ♂ F 17 mm., and darker. Upf apical spots clear, discal often faint, no spot in space 1b. Unh ochreous brown with rather faint radial streaks from the base and shorter streaks on the disc, resembling *hampsoni-subditus* intergrades.

Sub-sp. **septentrionum** Wood-Mason & De Nicéville 1887: ♂ Cachar: figured. Fig Lep Ind.

B.M. 2 ♂ Sikkim. 1 ♂ Bhutan. 12 ♂ 8 ♀ Assam. 22 ♂ 8 ♀ Burma to Tavoy. 16 ♂ Yunnan.

G.5. AMPITTIA Moore 1881: type *dioscorides* Fabricius: fixed by author as *maro* Fabricius, which is a synonym of *dioscorides.*

1a (5a). Unh extreme base of space 7 ochreous and the whole space may be described as yellow with black spots. Unf no spots in spaces 4 and 5.

1b (4). Uph central yellow spot not reaching end cell and so nearer to termen than to base. ♂ upf with a brand in basal half of space 1b.

1 (2, 3). ♂ brand a narrow dark streak from just beyond origin of vein 2 across space 1b. ♂ upf basal half of costa and all cell yellow: ♂ ♀ always with a yellow discal spot in space 1b against vein 1. ♀ uph always a sub-apical spot in space 5 which may be conjoined to a central yellow area.

dioscorides. 4 sub-species.

(a). Unf costal and sub-apical areas conjoined in first 3 sub-species. Unh brown with the yellow markings divided by dark veins. Uph usually with spots in spaces 1c and 6. Upf spot in space 1b small. ♂ F 11 mm.

Sub-sp. **singa** nov: ♂ Ceylon: type B.M. Fig Lep Ceylon as *maro.*

B.M. 17 ♂ 17 ♀ Ceylon.

(b). Brighter. Upf spot in space 1b large. Unh grades from WSF like *singa* to a DSF which is yellow with small dark spots and even these may be absent in extreme forms.

Sub-sp. **dioscorides** Fabricius 1793: ♀ Tranquebar. Fig Lep Ind.
Synonyms. *maro* Fabricius 1798: ♂ S. India.
ephesus Hübner 1823: ♂ "Surinam": figured.
B.M. 25 ♂ 22 ♀ S. India. 1 ♂ Kangra. 1 ♂ 1 ♀ Bengal. 22 ♂ 6 ♀ Assam. 8 ♂ 6 ♀ N. Burma.
(c). Like DSF *dioscorides*, but unh the black spots are sharp and clear instead of being suffused. Upf spot in space 1b conspicuous. Uph no spot in space 1c or 6 usually and the spot in space 4–5 usually divided. Often small, ♂ F 10–11 mm.

Sub-sp. **etura** Mabille 1891: ♀ Hong Kong.
Synonym. *matsumurai* Sonan 1936: ♂ Formosa.
B.M. China—3 ♂ 1 ♀ Kwang Su. 8 ♂ 5 ♀ Fukien. 8 ♂ 4 ♀ Kwang Tung. 12 ♂ 4 ♀ Kwang Si. 2 ♂ 1 ♀ Yunnan. 2 ♂ 2 ♀ Hainan. 3 ♂ 1 ♀ Tonkin. 9 ♂ 2 ♀ Formosa.
(d). Unf costal and sub-apical yellow areas divided. Otherwise like WSF *dioscorides* with some variation towards the DSF.

Sub-sp. **camertes** Hewitson 1868: ♂ Singapore: type B.M. Fig Distant.
Synonym. *palemonides* Snellen 1892: Sumatra.
B.M. 25 ♂ 2 ♀ Burma. 2 ♂ Siam. 1 ♂ Yunnan. 3 ♂ 2 ♀ Indo-China. 16 ♂ 4 ♀ Malaya. 5 ♂ 2 ♀ Sumatra. 9 ♂ 3 ♀ Java. 1 ♂ Borneo.

2 (1, 3). ♂ upf brand more curved and of pale yellowish scales, more or less overlaid with dark scales. ♂ upf basal area mostly dark brown, with a hooked yellow spot in cell. ♂ ♀ uph central yellow area narrow and dull, not extending nearly to the termen. ♂ F 14 mm.

virgata. 2 sub-species.
(a). Unh yellowish with dark spots.

Sub-sp. **virgata** Leech 1890: ♂ C. China: type B.M. Fig Leech 1894: Seitz I.
B.M. 22 ♂ 6 ♀ Hupeh. 10 ♂ 4 ♀ Hunan. 1 ♂ 2 ♀ Chekiang. 1 ♂ 2 ♀ Kiang Si. 1 ♂ Kwang Si. 15 ♂ 4 ♀ Fukien. 1 ♂ Kwang Tung. 3 ♂ Szechwan.
(b). Unh shaded brown, usually only with yellow spots in spaces 2 and 3.

Sub-sp. **myakei** Matsumura 1909: ♀ Formosa. Fig Matsumura 1931.
Synonym. *formosana* Fruhstorfer 1910: ♂ Formosa: type B.M.
B.M. 2 ♂ Amur. 1 ♂ "China, Alikiang". 6 ♂ 1 ♀ Formosa.

3 (1, 2). ♂ upf brand circular and obscure. ♂ like *dioscorides*, but upf and unf no spot in space 1b. Unh like *etura*. ♂ F 11 mm.

maroides De Nicéville 1896: ♂ Dawnas: figured.
B.M. 6 ♂ Manipur. 1 ♂ Momeit. 2 ♂ N. Sgan St. 1 ♂ Ataran.

4 (1b). Uph central yellow spot reaching end cell and so central between base and termen. ♀ without a yellow cell spot upf. No ♂ brand. ♂ F 13 mm.

trimacula Leech 1891: ♂ W. China: type B.M. Fig Leech 1894.
Synonym. *reducta* Draesecke 1925: ♂ Wa, Szechwan.
B.M. 11 ♂ 1 ♀ W. Szechwan (Ta Tsien Lou area).

5a (1a). Unh extreme base of space 7 brown and the whole space may be described as brown with pale spots. Unf often with spots in spaces 4 and 5. End of uncus rounded instead of excavate, resembling *Aeromachus*, rather than *Ampittia*.

5 (6). F origins of veins 11 and 2 opposite. Pale markings orange.

dalailama. 2 sub-species.

(a). Upf and uph markings prominent. ♂ F 13 mm.

Sub-sp. **dalailama** Mabille 1876: ♂ Thibet: type B.M. Fig Leech 1894 as *lyde*.
Synonym. *lyde* Leech 1891: ♂ W. China: type B.M.
B.M. 38 ♂ 3 ♀ W. Szechwan (Ta Tsien Lou area).

(b). Upf markings small and absent uph. Small, ♂ F 11½ mm.

Sub-sp. **jesta** Evans 1939: ♂ Szechwan: co-type B.M.
B.M. 3 ♂ Chekiang.

6 (5). F origin of vein 11 nearer base than is the origin of vein 2. Pale markings pale lemon yellow. Above markings absent or present as small dots upf. Antennae longer, = ½ costa, apiculus obtuse, nudum 6 segments, ending in pointed tip. ♂ F 10–11 mm.

nanus Leech 1890: ♂ C. China: type B.M. Fig Leech 1894. B.M. 2 ♂ 1 ♀ Kiang Su. 7 ♂ Chekiang. 2 ♂ 1 ♀ Fukien. 3 ♂ 1 ♀ Hunan. 10 ♂ 2 ♀ Hupeh. 2 ♂ 2 ♀ W. Szechwan.

G.6. AEROMACHUS De Nicéville 1890: type *stigmata* Moore: fixed by author.

Synonym. *Machacus* Swinhoe 1912: type *jhora* De Nicéville: fixed by author.

1a (7a). Antennal club angled beyond thickest part to a pointed apiculus: nudum 5/5.

1b (3a). Unh with purple markings. Above unmarked. ♂ F 13 mm.

1 (2). Unh with broad continuous central band. Cilia grey. ♂ upf with a discal stigma: H veins 6 and 7 hairpinned.

catocyanea. Mabille 1876: Thibet.

B.M. 10 ♂ W. China (Ta Tsien Lou, Siao Lou, Tse Kou and Li-kiang, Yunnan).

2 (1). Unh central markings narrow and broken. Cilia brown. ♂ upf with a short whitish dash over mid vein 1. H veins 6 and 7 normal.

kali De Nicéville 1895: ♂ Sikkim: figured. Fig Lep Ind; Seitz.

B.M. 5 ♂ Sikkim. 34 ♂ 2 ♀ Assam. 34 ♂ 1 ♀ N. Burma (to S. Shan St.).

3a (1b). Unh with white or grey markings.

3b (5a). Below, veins towards termen more or less conspicuously paler.

3 (4). Unh the inner pale spot in space 7 conspicuous. ♂ antennal club white at its base, a unique feature in the genus. Upf the row of central small white spots from space 1b to 8 well marked. ♂ upf with a whitish dash

over mid vein 1 and minute similar dashes on either side of vein 2 at its origin.

inachus. 2 sub-species.

(a). Larger, ♂ F 13 mm. Unh veins ochreous contrasting with the white spots.

Sub-sp. **inachus** Ménétriés 1859: Amur. Fig Ménétriés 1859: Pryer 1889: genitalia fig Elwes & Edwards 1897: Leech's fig is of *propinquus*.

B.M. 25 ♂ 11 ♀ Japan. 4 ♂ 2 ♀ Amur. 1 ♂ 3 ♀ Chingan Mts.

(b). Small, ♂ F 11½ mm. Unh veins nearly as white as the spots.

Sub-sp. **formosanus** Matsumura 1931: ♂ Formosa.

B.M. 10 ♂ 1 ♀ Nanking. 1 ♂ Shantung. 2 ♂ Hunan. 3 ♂ Hou Pe. These seem to accord with the description: B.M. have none from Formosa.

4 (3). Unh inner spot in space 7 absent or faint. Antennal club only whitish below. ♂ F 12 mm.

stigmata. 3 sub-species.

(a). ♂ upf with a discal stigma: H veins 6 and 7 hairpinned. Two well-marked seasonal forms. WSF (typical), upf markings absent or very faint: unf no cell spot. DSF upf with well-marked discal spots to vein 2 and a cell spot.

Sub-sp. **stigmata** Moore 1878: ♂ (WSF) Mussoorie: type B.M. Fig Lep Ind; Elwes & Edwards fig is of WSF *obsoleta*: Seitz fig is a DSF *obsoleta*.

Synonym. *monilis* Mabille 1883: ♂ Punjab.

B.M. 5 ♂ 1 ♀ WSF, 6 ♂ 6 ♀ DSF N.W. Himalayas (Murree-Kumaon). 18 ♂ 4 ♀ WSF, 16 ♂ 3 ♀ DSF Sikkim and Bhutan.

(b). WSF as *stigmata*. DSF (*obsoleta*), the stigma is faint, reduced to dots at each end, or absent: upf the white dots usually continued to vein 1.

Sub-sp. **obsoleta** Moore 1878: ♂ Cherrapunji: type coll Staudinger.

Synonym. *discreta* Plötz 1885: India: fig Swinhoe 1908.

B.M. 6 ♂ Assam, WSF. 21 ♂ 4 ♀ WSF, 15 ♂ 3 ♀ DSF Manipur and Naga Hills. 3 ♂ WSF, 1 ♂ DSF N. Burma to Bhamo.

(c). WSF as *stigmata*. DSF (*shanda*) has the upf unmarked and the stigma obsolete in ♂: unh generally paler and with fainter markings. ♀ upf markings very faint or absent.

Sub-sp. **shanda** nov: ♂ Kalaw, S. Shan St.: 4,200 ft.: 9/8/26: H. C. Tytler: type B.M.

B.M. 1 ♂ WSF, 1 ♂ DSF N. Shan St. 11 ♂ 1 ♀ WSF, 2 ♂ 1 ♀ DSF S. Shan St. 4 ♂ 1 ♀ Karens, WSF. 1 ♂ Yunnan, WSF.

5a (3b). Below, veins towards termen not paler.

5 (6). ♂ upf unmarked: with a conspicuous stigma as in *stigmata*. Unh spots very small. ♂ F 12 mm.

piceus Leech 1894: ♂ Moupin: figured: type B.M.

B.M. 2 ♂ Moupin. 2 ♂ Kwan Shien, Szechwan.

6 (5). ♂ upf with a slender whitish dash over vein 1. Uncus with very broad flat end, centrally indented. Upf spots faint or absent.

jhora. 3 sub-species.

(a). Unh with bright greenish yellow scaling, discal spots small, but conspicuous and compact. Cilia whiter than usual. ♂ F 12 mm.

Sub-sp. **jhora** De Nicéville 1885: ♂ Sikkim: figured. Fig Lep Ind; Seitz.

B.M. 25 ♂ 8 ♀ Sikkim.

(b). Unh with olive scaling; discal spots small and irregular. ♂ F 12–13 mm.

Sub-sp. **creta** nov: ♂ Khasia Hills: Sept. 1886: H. J. Elwes: specimen in B.M. fig Elwes & Edwards 1897 as *discreta*.

B.M. 25 ♂ 12 ♀ Assam. 36 ♂ 18 ♀ N. Burma to Karens. 1 ♂ 1 ♀ Kuatun, Fukien. 1 ♀ Malaya.

(c). Small, 11½ mm. Unh with olive scaling, discal spots broad and compact.

Sub-sp. **skola** nov: ♂ Sumatra, Battak Mts.: May 1894: Dr. Martin: type B.M.

B.M. 17 ♂ Sumatra (Type loc. Scolak Davas, Korinchi, 4,000 ft.).

7a (1a). Antennal club not bent beyond thickest part: nudum 8 segments.

7b (9a). Antennal club obtuse about thickest part: apiculus pointed.

7 (8). ♂ upf with a black stigma as in *stigmata*, but veins 6 and 7 H are normal. Upf the small white spots present or absent. Uncus as in *inachus*. Large, ♂ F 13–14 mm.

propinquus. 2 sub-species.

(a). Unh markings as in *inachus*, but the area between the two rows of white spots is filled with conspicuous black spots separated by white veins.

Sub-sp. **propinquus** Alphéraky 1897 (June): ♂ Wa Ssu Kow. Fig. by Leech as *inachus*.

Synonyms. *chinensis* Elwes & Edwards 1897 (Oct.): ♂ Wa-Shan: type B.M.

thibetanus Austaut 1900: S.W. China.

B.M. 48 ♂ 7 ♀ W. China (Ta Tsien Lou area).

(b). Unh markings much reduced, consisting only of a black cell spot, a white-edged black spot mid space 7 and a discal row of black-edged white spots. Upf and unf unmarked.

Sub-sp. **tali** Evans 1932: ♂ Tali, Haut Yunnan: type B.M.

B.M. 27 ♂ Yunnan (Tsekou, Tali, Lo Tse Kiang).

8 (7). ♂ upf with a small pale dash over mid vein 1. Upf spots very faint. Below marked as *jhora*. Uncus as *jhora*, but much narrower. ♂ F 11 mm.

dubius. 3 sub-species.

(a). ♂ F termen straight. Unh with dark ochreous scaling.

Sub-sp. **dubius** Elwes & Edwards 1897: ♂ Peermaad: figured: type B.M. Fig Lep Ind; Seitz.

B.M. 35 ♂ 8 ♀ S. India (Travancore to Palni Hills and Coorg).

(b). ♂ F termen convex. Unh with olive scaling and distinct markings.

Sub-sp. **impha** nov: ♂ Imphal, Manipur: 2,000 ft.: June 1911: H. C. Tytler: type B.M.

B.M. 14 ♂ 10 ♀ Manipur. 6 ♂ 1 ♀ Burma to Ataran. 1 ♂ 1 ♀ Yunnan (Manao). 3 ♂ 2 ♀ Tonkin. 6 ♂ 8 ♀ Hainan.

(c). As *impha*, but unh markings very faint and upf ♂ the dash over vein 1 is obsolete.

Sub-sp. **javanicus** Elwes & Edwards 1897: ♂ Java: figured: type B.M. Fig Rhop Java as *discreta*.
B.M. 4 ♂ 2 ♀ Java. In coll Corbet from Malaya.

9a (7b). Antennal club not bent and apiculus blunt.
9b (11). Above brown, no blue colouring. Upf spots faint or absent. Unh as *jhora*, but markings often very faint, scaling olive. Small, ♂ F 10 mm.
9 (10). ♂ upf with a stigma as in *stigmata*, but more raised and unf more channelled: vein 2 F is distorted towards vein 3, but veins 6 and 7 H are normal.
musca Mabille 1876: ♀ Luzon: type B.M. Fig Seitz.
B.M. 8 ♂ 2 ♀ Philippines.

10 (9). ♂ without secondary sexual characters. Antennae very short, less than ½ costa.
pygmaeus Fabricius 1775: India: Koenig (S. India).
Synonym. *indistincta* Moore 1878: ♂ Salween, Burma: type B.M. Fig Elwes & Edwards 1897; Lep Ind (but pl. 802/5, 5a is ♀ of *Iambrix stellifer* from Sumatra); Seitz.
B.M. 42 ♂ 23 ♀ S. India (N. Kanara, Coorg, Nilgiris, Calicut, Mysore). 2 ♂ Chittagong. 1 ♂ 2 ♀ Assam. 31 ♂ 17 ♀ Burma to Mergui. 1 ♂ 1 ♀ Siam. ♂ Perlis, Malaya.

11 (9b). Above pale plumbeous blue, extending upf to brown apex in ♂ and confined to base in ♀, and uph right up to a dark border. Unh grey brown with whitish spots as in *pygmaeus*. ♂ F 10–11 mm.
plumbeola Felder 1867: ♂ Luzon: figured: type B.M. Fig Seitz.
B.M. 15 ♂ 8 ♀ Philippines (Luzon, W. Sumar, Mindoro, Mindanao).

G.7. SEBASTONYMA Watson 1893: type *dolopia* Hewitson: fixed by author.

Upf brown with hyaline white spots, double in cell, discal spots in spaces 2 (far from cell) and 3, and apical spots. Uph a suffused pale area mid disc. Unh dark brown with a broad yellowish white band from apex to near base dorsum, large sub-tornal spot and submarginal streaks. Unf a pale pre-apical band and spot in space 2 continued as a broad whitish area to dorsum.

1 (2). Antennal club above brown. Upf 3 apical spots. Unh chocolate: a long white streak at base of space 7. ♂ F 16 mm.

dolopia Hewitson 1868: ♂ Sikkim: type B.M. Fig Hewitson 1871; Lep Ind; Seitz.
B.M. 45 ♂ 7 ♀ Sikkim. 27 ♂ 1 ♀ Assam. 2 ♂ 1 ♀ N. Burma (Sadon, Chindwin). 3 ♂ Ataran.

2 (1). Antennal club white above. Upf 2 apical spots, that in space 8 absent, or a dot. Unh bright ferruginous: a small white spot at base of space 7. ♂ F 15 mm.

pudens Evans 1937: ♂ Ataran: type B.M.
B.M. 2 ♂ N. Burma (Sadon). 1 ♂ S. Shan St. 4 ♂ Karen Hills. 2 ♂ Ataran.

G.8. SOVIA Evans (p. 27): type *lucasii* Mabille: fixed by author.

All species with uph unmarked: upf with hyaline spots in cell, spaces 2 and 3 and at apex. ♂ upf with *Halpe* type of stigma.

1a (5a). Upf single cell spot across cell. ♂ stigma upf nearer base than termen. Palpi clothed with long hairs, 3rd segment long.

1b (4). Palpi below clothed with ochreous and black hairs.

1c (3). Cilia rufous or ferruginous, not conspicuously chequered.

1 (2). ♂ upf spot in space 2 nearer to the spot in space 3 than to the cell spot. Below apex and costa F and all H clothed ochreous brown scales, unmarked. Unf outer half of dorsum from mid space 1b conspicuously paler. ♂ F 16 mm. Uncus with a short process on either side: inner tooth of cuiller long and pointed, close to the outer tooth.

grahami Evans 1926: ♂ Khasia Hills, Assam: type B.M.: figured.
B.M. 1 ♂ Kumaon. 32 ♂ 1 ♀ Sikkim. 1 ♂ Assam.

2 (1). Upf spot in space 2 nearer to the cell spot than to the spot in space 3, its inner edge in line with the outer edge of the cell spot: cell spot narrowly rectangular. Below, apex and costa F and all H ferruginous, unmarked: dorsum F paler. ♂ F 16 mm. Uncus without side processes: inner tooth of cuiller more central, but short and rounded.

malta nov: ♂ Kabru, Manipur: 8,000 ft.: July 1911: H. C. Tytler.
B.M. 5 ♂ 13 ♀ type loc.

3 (1c). Cilia more or less conspicuously chequered. Unh scaling olive or ochreous, no rufous or ferruginous tone. Upf ♂ spots as in *malta*. Uncus as in *malta*: inner tooth of clasp long and pointed, more central than in *grahami*.

lucasii. 4 sub-species.
(a). Small, ♂ F 15 mm. Chequering of cilia obscure above, more conspicuous below.
Sub.-sp. ***separata** Moore 1882: ♂ Sikkim: type B.M. Fig Elwes & Edwards; Lep Ind.
B.M. 34 ♂ 8 ♀ Sikkim. 1 ♀ Bhutan.
(b). Large, ♂ F 17 mm. Above blacker: white and black chequering of cilia very conspicuous and extreme apex upf of ♂ tipped with white. Unh olive, occasionally with signs of dark spots.
Sub-sp. ***magna** Evans 1932: ♂ Naga Hills: type B.M.
B.M. 23 ♂ 5 ♀ Naga Hills. 2 ♂ 2 ♀ Manipur (Kabru, Suroifui). 1 ♂ W. China, Lou Tse Kiang (wings rounder).
(c). Unh yellower, with conspicuous dark spots in spaces 2, 3, 5 and 6. Cilia chequered conspicuously, but white portions turning pale rufous at apex H and on F: apex upf not white tipped. ♂ F 16 mm.
Sub-sp. **lucasii** Mabille 1876: ♂ Mupin.
Synonym. *sona* Evans 1937: ♂ Siao Lou: type B.M.
B.M. 2 ♂ Tien Tsuen. 1 ♂ Siao Lou.

4 (1b). Palpi below white with very few black hairs. Cilia grey, not chequered. Unh bright yellow with black spots in spaces 2, 3 and 6, some of which may be absent. ♂ F 14 mm. Uncus narrow.

subflava Leech 1894: ♂ Wa Ssu Kow: type B.M.: figured. Fig Seitz I.
B.M. 6 ♂ type loc.

5a (1a). Upf 2 quite separate spots in cell. ♂ stigma upf nearer termen than base. Palpi smooth, 3rd segment short.
5 (6). Unh chequered with small whitish and brown spots: always a conspicuous large brown discal spot in space 4–5. WSF unh markings sharply defined, veins pale. DSF unh markings blurred and paler. ♂ 13 mm.
albipectus De Nicéville 1891: ♂ Thoungyin DSF: figured. Fig Lep Ind; Seitz.
Synonym. *prominens* Evans 1932: ♂ Maymyo WSF: type B.M.
B.M. 8 ♂ 1 ♀ N. Shan St. 2 ♂ 1 ♀ Karens. 24 ♂ 9 ♀ Ataran, Burma. 9 ♂ 1 ♀ Siam. 4 ♂ Indo-China.

6 (5). Unh basal half mostly white, outer half mostly brown. Unf dorsal area broadly white. ♂ F 17 mm.
hyrtacus De Nicéville 1897: ♂ S. India: figured. Fig Lep Ind; Seitz.
Synonym. *miesa* (Hewitson MS) Kirby Cat Coll Hew 1879: 245: ♀ Nilgiris.
B.M. 12 ♂ 6 ♀ Coorg. 1 ♀ Nilgiris. 2 ♂ Animalai Hills. 6 ♂ 1 ♀ N. Kanara.

G.9. PEDESTA

G.9. PEDESTA Hemming 1934: type *masuriensis* Moore: fixed by author; to replace *Pedestes*, a homonym by Gray 1842.
Synonym. *Pedestes* Watson 1893: type *masuriensis* Moore: fixed by author.

All species have upf a single or double cell spot, discal spots in spaces 2 and 3 and 3 apical spots.
1a (3a). Upf spot in space 2 overlaps the spots in cell and space 3. ♂ upf no brand.
1 (2). Upf spot in space 3 reaching base of space 3 and the cell spot: the 3 central spots crowded together.

masuriensis. 2 sub-species.

(a). ♂ above dark purple brown, spots upf white. ♂ F 15 mm.

Sub-sp. **masuriensis** Moore 1878: ♂ Mussoorie: type B.M.: figured. Fig Staudinger 1888; Lep Ind; Seitz; genitalia by Elwes & Edwards 1897.

B.M. 14 ♂ 2 ♀ N.W. Himalayas (Kulu-Kumaon). 32 ♂ Sikkim. 2 ♂ Assam.

(b). ♂ above dark brown, spots upf yellow, usually extending into space 1b and very narrowly into space 4. ♂ F 16 mm.

Sub-sp. ***tali** Swinhoe 1912: ♂ Haut Yunnan: type B.M.

B.M. 8 ♂ Yunnan (Tali, Bahand). 1 ♂ Ta Tsien Lou. 1 ♂ Tay Tou Ho.

2 (1). Upf spot in space 3 small and widely separated from the cell spot: spots dull yellow. ♂ F 13 mm.

***panda** Evans 1937: ♂ Naga Hills: type B.M. Fig Evans 1926, pl. 31/59–2.

B.M. 32 ♂ Manipur and Naga Hills.

3a (1a). Upf spot in space 2 widely separated from the cell spot: spots pale yellow.

3b (5a). Upf spots in spaces 2 and 3 overlapping.

3 (4). Upf cell spot single, reaching across cell. No male brand.

pandita De Nicéville 1885: ♀ Sikkim: figured. Fig Lep Ind; genitalia fig Elwes & Edwards 1897.

B.M. 26 ♂ 2 ♀ Sikkim. 23 ♂ Naga Hills. 12 ♂ N. Burma to N. Shan St. 1 ♂ Tonkin.

4 (3). Upf cell spot double, upper part small or absent. ♂ upf with a brand of the *Halpe* type from mid vein 1 to above origin of vein 2, which is distorted so that its origin is very close to the origin of vein 3: H veins 6 and 7 hairpinned.

blanchardii. 2 sub-species.

(a). Very small, ♂ F 13 mm. and wings very rounded.

Sub-sp. **shensia** nov: ♂ Tapai Shan, S. Shensi: 5,500 ft.: H. Höne: type B.M.

B.M. 4 ♂ type loc.

(b). Larger, ♂ F 15 mm. and wings more produced.

Sub-sp. **blanchardii** Mabille 1876: ♂ Mupin. Fig Leech: Seitz I.

B.M. 31 ♂ W. Szechwan (Ta Tsien Lou area).

5a (3b). Upf spots in spaces 2 and 3 not overlapping: cell spot across cell. ♂ upf with the *Halpe* brand; vein 2 not distorted.

5 (6). ♂ upf brand from mid vein 1, which is there acutely distorted. Cilia H yellow.

baileyi. 2 sub-species.

(a). ♂ F 15 mm. Unh light ferruginous, yellow discal spots conspicuous.

Sub-sp. ***baileyi** South 1913: ♂ Menkong: type B.M. Fig Lep. Ind., pl. 821/2a, ♂ as *aina* ♀.

B.M. 1 ♂ type. 1 ♂ Ta Tsien Lou. 51 ♂ Yunnan (Tse Kou, Tali, Lou Tse Kiang).

(b). ♂ F 13 mm. Unh smooth yellow, discal spots faint and confluent or invisible.

Sub-sp. **nanka** nov: ♂ Wushi, Szechwan: May 1929: Kelly-Roosevelt Exped.

B.M. 54 ♂ type loc. 10 ♂ Li-kiang, Yunnan.

6 (5). ♂ upf brand from well before mid vein 1, which is not there distorted. Unh dark ochreous brown, discal spots few or absent. ♂ F 16 mm. Cilia H grey.

***serena** Evans 1937: ♂ Ta Tsien Lou: type B.M.

B.M. 3 ♂ E. Turkestan (Fort Narine). 120 ♂ W. Szechwan (Ta Tsien Lou area). 2 ♂ Yunnan (Tse Kou). 1 ♀ N.E. Burma (Kambaiti, 6,000 ft.). 2 ♂ Tonkin (Ngai Tio).

G.10. ONRYZA Watson 1893: type *meiktila* De Nicéville: fixed by author.

Upf with pale yellow subhyaline spots, double cell spot with the lower part prolonged towards base, discal in spaces 2 and 3, far from cell spot, 2 or 3 apical spots and there may be a spot in space 1b.

1a (4). Uph without sharply marked small spots.

1b (3). Upf 2 apical spots and a conspicuous spot in space 1b against vein 1. Uph disc paler and ♂ with a long recumbent black "paint-brush" over cell.

1 (2). Upf spots in spaces 2 and 3 quadrate, partly overlapping. Uph disc ochreous green concolorous with hairs in 1b and 1c. Unf upper spot in space 1b absent. Unh varies with season: uniform ochreous in DSF to dark brown in WSF, with central, discal and post-discal, rather ill-defined, spots. ♂ F 15 mm. Upper dorsal end of clasp turned over.

meiktila De Nicéville 1891: ♂ Meiktila: figured. Fig Lep Ind; Seitz.
B.M. 30 ♂ Burma (Bhamo to Ataran).

2 (1). Much yellower. Upf spots in spaces 2 and 3 elongate, completely overlapping. Uph a conspicuous yellow discal area, not concolorous with the dark dorsal hairs. Unf spots in spaces 3, 2 and 1b form a continuous broad yellow band. Unh varying from plain ochreous, as in DSF *meiktila*, to ferruginous brown with large yellow spots more or less conjoined. ♂ F 14 mm. Upper dorsal end of clasp not turned over.

siamica Riley & Godfrey 1925: ♂ N. Siam: type B.M.: figured.
B.M. 4 ♂ N. Burma (Bhamo to S. Shan St.). 3 ♂ N. Siam.

3 (1b). ♂ upf with 3 apical spots, no spot in space 1b. Uph brown with 2 long scent scale surfaces from base on disc. Below as *meiktila*: unh darker and markings better defined. ♂ F 15 mm. Not seen.

perbella Hering 1918: ♂ Tsha Ja San: figured.
B.M. None.

4 (1a). Uph with 2 sharply marked yellow spots in spaces 2 and 3. Upf ♂ like *meiktila*; ♀ lower cell spot not prolonged towards base. No secondary sex characters.

maga. 2 sub-species.

(a). Unf apex and costa, and all unh, yellow with many small black dots, recalling *Ampittia*. ♂ F 15 mm.

Sub-sp. **maga** Leech 1890: ♂ C. China: type B.M. Fig Leech 1894.

B.M. 13 ♂ 6 ♀ Fukien. 2 ♂ Hupeh. 1 ♂ Canton.

(b). Smaller and markings reduced. Below, yellow colouring much duller and black spots faint or absent. ♂ F 14 mm.

Sub-sp. **arisana** Matsumura 1909: ♂ Formosa.

Synonym. *takeuchii* Matsumura 1929: ♂ Formosa. Fig Matsumura 1931.

B.M. 4 ♂ 2 ♀ Formosa.

G.11. THORESSA Swinhoe 1913: type *masoni* Moore: fixed by author.

1a (4a). Uph with a more or less developed ochreous discal area. Upf spots yellow: cell spot across cell: discal spots overlap. Unh yellow with dark spots. Palpi yellow below. Antennal club yellow in front and below. ♂ F 15–16 mm.

1 (2a). ♂ upf with the *Halpe* stigma: lower part of cell spot produced basad. Unf ♂ without a spot in space 1b, ♀ with a small spot on vein 1.

decorata Moore 1881: ♂ Ceylon: type B.M.: figured. Fig Lep Ind; Seitz.

B.M. 39 ♂ 10 ♀ Ceylon.

2a (1). ♂ upf no stigma. Unf with a broad pale spot across space 1b.

2 (3). Upf usually no spot in space 1b: in ♀ lower spot present, upper absent or narrow and oblique. Unh spots absent in DSF.

honorei De Nicéville 1887: ♂ Palni Hills: figured. Fig Lep Ind.

B.M. 32 ♂ 16 ♀ S. India (N. Kanara, Nilgiris, Palnis).

3 (2). Upf with double spot in space 1b, the upper spot larger and not oblique. Uph ochreous area paler, smaller and more sharply defined. Unh spots tend to be absent in DSF.

masoni Moore 1878: ♂ Upper Tenasserim: type B.M.: figured. Fig Elwes & De Nicéville 1886; Lep Ind; Seitz.

B.M. 7 ♂ Manipur. 51 ♂ 2 ♀ Burma (to Tavoy). 1 ♂ Siam. 1 ♂ Tonkin.

4a (1a). Uph no ochreous area. Upf spots white or nearly so.
4b (9a). Antennal club ringed pale yellow before apiculus.
4c (7a). Upf spot in space 2 mid spot in space 3 and cell spot.
4 (5a). Unh ochreous brown with obscure suffused paler markings and sometimes a sharply marked small pale yellow spot in space 6: DSF quite plain. ♂ upf stigma often ill developed and may be absent. ♂ F 15–17 mm.

hyrie De Nicéville 1891: ♂ Naga Hills: figured. Fig Lep Ind; Seitz.
Synonym. *merea* Evans 1932: ♂ S.E. Thibet: type B.M.
B.M. 1 ♀ Bhutan. 36 ♂ 1 ♀ Manipur and Naga Hills. 2 ♂ Sadon, N. Burma. 1 ♂ N. Shan St. 1 ♂ S.E. Thibet.

5a (4). Unh with more or less developed sharply marked white spots or markings. ♂ F 18 mm.
5 (6). Unh typically with a discal row of small white spots and a more obscure submarginal series, ending in a double spot in space 1c, preceded by a pale streak. ♂ upf no stigma.

astigmata Swinhoe 1890: ♂ Nilgiris: type B.M. Fig Lep Ind.
B.M. 35 ♂ 13 ♀ S. India (Coorg, Nilgiris, N. Kanara).

6 (5). Unh with a more or less continuous band of white spots and a large spot at base of space 7, also an obscure submarginal series. ♂ upf stigma present: cell spot usually divided.

cerata Hewitson 1876: ♂ Sikkim: type B.M. Fig Lep Ind.
B.M. 39 ♂ 6 ♀ Sikkim. 20 ♂ Assam. 17 ♂ Burma (to Ataran). 1♂ Siam. 3 ♂ Indo-China.

7a (4c). Upf spots in spaces 2 and 3 approximate, more or less overlapping.
7 (8). Unh with somewhat patchy ochreous scaling and sharply marked small white discal spots in spaces 2, 3 and 6, which may show uph. ♂ upf stigma dark. ♂ F 20 mm.: wings produced.

kuata Evans 1940: ♂ Kuatun, Fukien: co-type B.M.
B.M. 5 ♂ Fukien. 1 ♀ Chekiang.

8 (7). Unh with very broad and numerous pale yellow markings. Upf with well-defined whitish spots in spaces 2, 3 and 6. ♂ upf stigma outwardly white-edged. ♂ F 18–19 mm.: more or less produced.

submacula Leech 1890: ♂ Chang Yang: type B.M. Fig Leech 1894; Seitz.

B.M. 2♂ 2♀ Chekiang. 5♂ Fukien. 8♂ Hupeh. 2♂ Tonkin.

9a (4b). Antennal club not ringed pale yellow before apiculus.

9b (11a). Unf and unh with pale yellow submarginal spots separated by dark veins. ♂ brand dark.

9 (10). Unh black with a broad yellow radial streak from base through cell to termen, also discal spots in spaces 2, 3, 6 and 7. Uph usually yellow spots in spaces 2 and 3. ♂ F 18 mm.

horishama Matsumura 1910: ♂ Formosa. Fig Matsumura 1931.

Synonyms. *ara* Fruhstorfer 1911: ♂ Formosa: type B.M. *formosa* Seitz 1926: plate 171 e, ♂: not mentioned in text. *aokii* Matsumura 1934: ♀ Formosa: figured.

B.M. 12♂ 4♀ Formosa.

10 (9). Unh with ochreous olive scaling and white spots in spaces 2, 3 and 6. ♂ F 15 mm.

varia Murray 1876: ♂ Japan: type B.M. Fig Pryer 1889; Leech 1894; Seitz I.

Synonym. *melancholica* Bryk 1942: ♀ Tomari, Kurile Is. A spotless aberration.

B.M. 26♂ 23♀ Japan.

11a (9b). Below, without pale submarginal markings separated by dark veins: the submarginal markings usually obsolete.

11b (13a). ♂ upf stigma without whitish scales below vein 2 and above vein 1, but mid space 1b the scales are larger and paler brown. Upf with double cell spot.

11 (12). ♂ F 15 mm. Cilia chequered. Unh light ochreous, usually with whitish spots in spaces 2, 3 and 6. A submarginal light ochreous band at apex unf and on unh.

latris Leech 1894: ♂ Ta Tsien Lou: type B.M.: figured. Fig Seitz I.
B.M. 5 ♂ Ta Tsien Lou area.

12 (11). ♂ F 18 mm. Cilia dusky. Unh pale ferruginous with traces of pale spots in spaces 2, 3 and 6 and of a submarginal band.
* **thandaunga** Evans 1926: ♂ Karen Hills: type B.M.
B.M. 1 ♂ Htawgaw, N. Burma. 8 ♂ Karen Hills.

13a (11b). ♂ stigma upf in space 1b flanked by more or less conspicuous patches of whitish hairs under vein 2 and over vein 1.
13b (17a). H cilia whitish.
13c (15a). Unh space 1b conspicuously darker than rest of wing.
13 (14). Unh with conspicuous radial silver streaks. ♂ F 15 mm.
bivitta Oberthür 1886: ♂ Ta Tsien Lou: type B.M.: figured. Fig Seitz I.
Synonym. *albivitta* Oberthür 1886: inadvertently used for *bivitta*.
B.M. 58 ♂ 2 ♀ Ta Tsien Lou area. 10 ♂ Yunnan (Tse) Kou, Tali, Li-kiang).

14 (13). Unh dense bright ochreous with faint darker shading. Upf cell spots obsolete. Cilia unchequered.
zinnia Evans 1939: ♂ Li-kiang, Yunnan: co-type B.M.
B.M. 6 ♂ type loc.

15a (13c). Unh space 1b concolorous with wing or paler.
15 (16). Unh grey rather than ochreous. Inner face of cuiller of right clasp straight. Smaller, ♂ F 15 mm.
gupta. 2 sub-species.
(a). Unh olive scaling sparser: usually with white spots in spaces 2, 3 and 6. Unf dorsum dark. Upf cell spots usually absent or faint.
Sub-sp. **gupta** De Nicéville 1886: ♂ Sikkim: figured. Fig Lep Ind, pl. 818/2a (2 and 2b are of *Halpe sikkima*).
B.M. 2 ♂ Garhwal. 45 ♂ Sikkim.

(b). Unh much paler because of denser scaling: spots very faint. Unh dorsum in space 1a whitish.

Sub-sp. **leechii** Evans 1932: ♂ Wa Ssu Kow: type B.M.: figured Leech 1894 as *gupta*.

B.M. 1 ♂ type. 1 ♂ Tse Kou, Yunnan.

16 (15). Unh ochreous rather than grey. Inner face of cuiller of right clasp deeply excavate. Larger, ♂ F 17 mm.

fusca. 5 sub-species.

(a). Upf with double cell spot. Unh bright ochreous with well-marked pale spots in spaces 2, 3 and 6 and a pale yellow submarginal band.

Sub-sp. **debilis** Elwes & Edwards 1897: ♂ Khasia Hills: type B.M.: figured. Fig Lep Ind; Seitz.

B.M. 1 ♂ 1 ♀ Khasia Hills.

(b). Upf with double cell spot. Unh light ochreous brown, unmarked.

Sub-sp. **caenis** Leech 1894: ♂ Chia Kou Ho: type B.M.: figured. Fig Seitz I.

B.M. 1 ♂ type.

(c). Upf no cell spot: otherwise as *caenis*.

Sub-sp. ***senna** Evans 1937: ♂ Siao Lou: type B.M.

B.M. 14 ♂ W. Szechwan (Ta Tsien Lou area). 1 ♂ Yunnan (Tali).

(d). Like *senna*, but a good deal darker. Unf cell spots often present. Unh generally unmarked, but sometimes with faint submarginal pale band.

Sub-sp. **fusca** Elwes 1892: ♂ Bernardmyo, N. Burma: type B.M.: figured. Fig Lep Ind; genitalia fig Elwes & Edwards 1897.

B.M. 4 ♂ Manipur. 3 ♂ Naga Hills. 1 ♂ Htawgaw, N. Burma. 1 ♂ type.

(e). Dark form. Upf with narrow double cell spot. Unh very dark, with sparse dark ochreous scaling: whitish spots in spaces 2, 3 and 6 present or absent.

Sub-sp. **strona** nov: ♂ Kuatun, Fukien: 7,000 ft.: J. Klapperich: type B.M.

B.M. 14 ♂ type loc.

17a (13b). H cilia reddish ochreous, unchequered.

17 (18a). Upf hyaline spots yellow: double cell spot. Unh with ochreous olive scaling, unmarked. ♂ F 16 mm.

aina De Nicéville 1890: ♂ Sikkim: figured. Fig wrongly in Lep Ind, pl. 821, where fig 2a is *Pedesta baileyi* and 2, 2b are *hyrie*.
B.M. 7 ♂ 1 ♀ Garhwal. 8 ♂ Sikkim.

18a (17). Upf hyaline spots white: cell spots separate.
18 (19). Unh rufous brown, uniform: usually with conspicuous white spots in spaces 2, 3 and 6. ♂ F 16 mm.

sitala De Nicéville 1885: ♂ Nilgiris: figured. Fig Lep Ind; Seitz.
B.M. 1 ♂ Coorg. 9 ♂ Nilgiris.

19 (18). Unh dusky ochreous, dark brown base, discal band and margin: the discal spots may be pale centred. ♂ F 17 mm.

evershedi Evans 1910: ♂ Palni Hills: type B.M. Fig Lep Ind.
Synonym. *cochina* Evans 1932: ♂ Animalai Hills: type B.M.
B.M. 1 ♂ 1 ♀ Nilgiris. 5 ♂ 1 ♀ Animalai Hills. 4 ♂ Palni Hills. 6 ♂ Travancore.

G.12. HALPE Moore 1878: type *porus* Mabille: fixed by Watson 1893 as *beturia* Hewitson incorrectly, as the true *beturia* was not included by Moore: fixed correctly by Swinhoe 1913 as *moorei* Watson (the name for the "*beturia*" included by Moore), which is a synonym of *porus*. Lindsey 1925 incorrectly states that *ceylonica* was cited in the Zoological Record for 1878.

1a (9a). Antennal club above, white or pale yellow ringed before apiculus. Upf upper cell spot usually present: lower very rarely visible.
1b (3a). Unh with a broad continuous white band.
1 (2). Cuiller of clasp not tapered or curved and without a lower spine.

zema. 3 sub-species.
(a). Upf spots in spaces 2 and 3 overlap: 3 apical spots.

Unh band broad, 2–3 mm., inwardly straight, outwardly irregular. ♂ F 17 mm.

Sub-sp. **zema** Hewitson 1877: ♂ Sikkim: type B.M. Fig Lep Ind; Seitz.

B.M. 31 ♂ 8 ♀ Sikkim. 24 ♂ 1 ♀ Assam. 1 ♂ 1 ♀ N. Burma. 1 ♂ Indo-China.

(b). Upf spots in spaces 2 and 3 separate: 2 apical spots. Unh band narrow, 1–2 mm., inwardly straight, outwardly serrate. ♂ F 16 mm.

Sub-sp. **ormenes** Plötz 1886: ♂ Nias. Fig Weymer 1887; Rhop Java.

Synonyms. *vilasina* Fruhstorfer 1911: ♂ Sumatra: type B.M.

vistara Fruhstorfer 1911: ♂ Java: type B.M. Fig Seitz.

mahapara Fruhstorfer 1911: ♂ Palawan: based on 1 ♂ 1 ♀ described by Staudinger 1889.

B.M. 21 ♂ 5 ♀ Burma (Ataran to Mergui). 1 ♂ Malaya. 15 ♂ 1 ♀ Nias. 6 ♂ 1 ♀ Sumatra. 22 ♂ 1 ♀ Java.

(c). Upf as *zema*: 2 apical spots. Unh band broad, 2½ mm., regular on both sides. ♂ F 17 mm.

Sub-sp. **vistula** Evans 1937: ♂ Borneo: type B.M.

B.M. 28 ♂ 4 ♀ Borneo.

2 (1). End of clasp tapered and curved over. Smaller, ♂ F 15 mm. Unh band 2½ mm., irregular on both sides.

zola. 3 sub-species.

(a). Cuiller of clasp with a lower spine. Upf spots in spaces 2 and 3 overlap, 2 or 3 apical spots: upper cell spot present.

Sub-sp. **zola** Evans 1937: ♂ Tavoy: type B.M.

B.M. 2 ♂ Manipur. 33 ♂ 6 ♀ Burma (to Mergui). 1 ♂ Siam. 2 ♂ Indo-China.

(b). As *zola* in appearance: clasp as *zinda*.

Sub-sp. **zamba** Corbet 1940: ♂ Selangor: type B.M.

B.M. 2 ♂ Malaya.

(c). Upf no cell spot. Cuiller of clasp without a lower spine.

Sub-sp. **zinda** Evans 1937: ♂ Java: type B.M.

B.M. 2 ♂ Java.

3a (1b). Unh without a broad continuous white band.
3b (5a). Unh with a purple gloss and white markings.
3 (4). Cilia H white. Unf with 2 cell spots. Unh markings over entire wing. ♂ F 16 mm.: wings produced.
insignis Distant 1886: ♂ Singapore: figured. Fig Seitz.
B.M. 2 ♂ S. Burma (Ataran, Mergui). ♂ 2 Siam. 1 ♂ Malaya. 2 ♂ 1 ♀ Sumatra. 1 ♂ Borneo.

4 (3). Cilia H chequered or sullied. Unf only upper cell spot. Unh markings confined to a discal row of spots. ♂ F 17 mm.
fasciata Elwes & Edwards 1897: ♀ Borneo: figured. Fig Seitz, but neither figure shows the discal spots unh.
B.M. 1 ♂ 1 ♀ Borneo.

5a (3b). Unh no purple gloss: markings ochreous or absent.
5b (7a). Upf upper cell spot conspicuous, as large as spot in space 3. Unh with dark yellow scaling.
5 (6). Small, ♂ F 15 mm.: wings rounded. Cilia light reddish brown. Unh generally unmarked, ochreous scaling denser.
kumara De Nicéville 1885: ♂ Sikkim: type B.M.: figured. Fig Lep Ind; Seitz.
B.M. 13 ♂ 2 ♀ Sikkim. 1 ♂ Khasia Hills. 9 ♂ 6 ♀ Manipur. 46 ♂ 4 ♀ Naga Hills.

6 (5). Larger, ♂ F 17 mm.: wings more produced. Cilia greyer. Unh scaling patchier and sparser: generally with a conspicuous sub-tornal ochreous spot and often the discal series well marked. Clasps of genitalia broader and cuiller teeth more pronounced.
knyvetti Elwes & Edwards 1897: ♂ Sikkim: type B.M.: figured. Fig Seitz: fig in Lep Ind is of *homolea*.
Synonyms. *tytleri* Evans 1932: ♂ Khasia Hills: type B.M. *kilda* Evans 1937: ♂ Sikkim: type B.M.: wrong abdomen.
B.M. 6 ♂ Sikkim. 3 ♂ Khasia Hills. 1 ♂ Jaintia Hills. 18 ♂ 1 ♀ Naga Hills. 1 ♂ Karen Hills.

7a (5b). Upf upper cell spot absent or smaller than spot in space 3. Unh with much paler, olive, scaling. Cilia grey. Wings elongate.

7 (8). Larger, ♂ F 17 mm.: wings very produced, termen F and H straight. Unh markings ill defined.

***sikkima** Moore 1882: ♂ Sikkim: type B.M. The name has been much misused: the only correct figure is in Lep Ind pl. 818/2, 2b of "*gupta*".
Synonym. *selangora* Swinhoe 1913: ♂ Selangor: type B.M.
B.M. 3 ♂ Sikkim. 13 ♂ Khasia Hills. 10 ♂ 1 ♀ Manipur. 7 ♂ 5 ♀ Burma (Ataran to Mergui). 2 ♂ 3 ♀ Pen Siam. 2 ♂ Indo-China. 1 ♂ Hainan. 1 ♂ 1 ♀ Malaya. 2 ♂ 1 ♀ Sumatra. 1 ♂ Java. 1 ♀ Borneo.

8 (7). Small, ♂ F 15 mm. Unh pale yellowish markings conspicuous. Genitalia much modified.

palawea Staudinger 1889: ♂ Palawan.
B.M. 4 ♂ 3 ♀ Palawan.

9a (1a). Antennal club above, not whitish ringed before apiculus.
9b (13a). Upf with 2 cell spots or a single spot across cell.
9 (10a). Unh central band white, sharply defined. Upf with two separated cell spots. Darker and paler seasonal forms. ♂ F 15 mm.

porus Mabille 1876: ♂ "Himalaya" (probably Assam): type B.M. ♀ fig Elwes & Edwards 1897 as *beturia* type and reproduced in Seitz. ♂ ♀ fig Lep Ind as *moorei*.
Synonyms. *moorei* Watson 1893: ♂ Tilin Yaw, N. Burma: type B.M.
teliga Swinhoe 1893: ♂ Assam: type B.M.
beturina Fruhstorfer 1911: ♂ Annam: type B.M.
B.M. 23 ♂ 17 ♀ S. India (N. Kanara, Coorg, Calicut). 2 ♂ 3 ♀ Calcutta. 16 ♂ 2 ♀ Assam. 30 ♂ 11 ♀ Burma (to Tavoy). 5 ♂ 4 ♀ Siam. 6 ♂ 3 ♀ Indo-China. 5 ♂ 2 ♀ Hainan. 1 ♂ Kwang Si. 2 ♂ Kwang Tung. 18 ♂ 19 ♀ Andamans. 1 ♂ Penang.

10a (9). Unh band not white nor sharply defined.
10b (12). Unh central band inwardly undefined, merged to the sub-basal suffusion. Small, ♂ F 15 mm.
10 (11). Upf cell spots nearly always completely conjoined.

Unh markings comparatively conspicuous; veins on disc pale, separating the ground colour between the two bands into a series of dark spots. Foot-stalk of clasp very long.

hauxwelli Evans 1937: ♂ Thoungyin Valley: type B.M.
B.M. 2 ♂ Manipur. 7 ♂ N. Shan St. 15 ♂ 1 ♀ S. Shan St. 1 ♂ 1 ♀ Pegu Yoma. 3 ♂ Ataran. 9 ♂ 4 ♀ Siam.

11 (10). Upf cell spots separate. Unh markings faint. Foot-stalk of clasp very short. ♂ upf brand with white patches as in *Thoressa gupta* and its allies.

burmana Swinhoe 1913: ♂ Ataran: type B.M.: figured.
B.M. 11 ♂ 4 ♀ Ataran. 1 ♂ 1 ♀ Siam. 1 ♀ Indo-China.

12 (10b). Unh central band well defined and almost exactly as in *nephele*. Upf with 2 cell spots: spot in space 2 longer than in any other species of *Halpe*, nearly reaching the cell spots. Large, ♂ F 17 mm.

gamma Evans 1937: ♂ Formosa: type B.M.
B.M. 1 ♂ Formosa. 1 ♂ Fukien. 1 ♀ Ta Tsien Lou.

13a (9b). Upf cell spot absent or against radius, never across cell and lower cell spot never present.
13b (19a). ♂ F termen convex and equal to dorsum.
13 (14a). Cilia chequered, at least apparent unf.

homolea. 10 sub-species.
(a). Upf discal spots generally absent in ♂. Cilia ochreous brown. Unh dark, markings faint. ♂ F 16 mm. See Ormiston 1924 (Butt Ceylon: p. 131).
Sub-sp. **egena** Felder 1868: Kallupahani, Ceylon.
Synonym. *brunnea* Moore 1881: ♀ Ceylon: figured. Fig Lep Ind.
B.M. 10 ♂ 4 ♀ Ceylon (not Kandy).
(b). Upf discal spots small, well separated. Small, ♂ F 15 mm. Cilia grey. Unh central band dull yellow and often much suffused.
Sub-sp. **ceylonica** Moore 1878: ♂ Ceylon: type B.M.: figured. Fig Lep Ind, pl. 817/2b—♀ only.
B.M. 24 ♂ 13 ♀ Ceylon (mostly Kandy).
(c). Similar to *ceylonica*, but unh band whiter and better defined.

Sub-sp. **hindu** Evans 1937: ♂ Nilgiris: type B.M. Fig Lep Ind, pl. 817/2, 2a—♂ as *ceylonica*.
B.M. 36 ♂ 13 ♀ S. India (Travancore to N. Kanara).
(d). ♂ F 16 mm. Upf discal spots overlapping: cell spot conspicuous: 2 apical spots. Cilia white. Below markings conspicuous. Lower branch of cuiller stout, serrate.

Sub-sp. **molta** nov: ♂ Sikkim: type B.M. Fig Elwes 1888 as *sikkima*.
B.M. 40 ♂ Sikkim.
(e). ♂ F 17–18 mm. Like *molta*, but upf cell spot absent or small: 3 apical spots: unh central band inconspicuous, suffused. Lower branch of cuiller tapered and pointed.

Sub-sp. **filda** nov: ♂ Mangpo, Sikkim: 1,200 ft.: H. J. Elwes, 28th May 1886: type B.M.: figured Elwes 1888 as *sikkima* variety. Fig Lep Ind as *knyvetti*.
B.M. 10 ♂ Sikkim (probably in different localities from *molta*).
(f). ♂ 16 mm. Intermediate between *molta* and *handa*: some specimens resemble *filda*. Typically with spots upf as *molta*, but smaller: uph darker and more uniform: unh markings less well defined. Upper branch of cuiller crested and inwardly pointed: lower branch slender, pointing upwards.

Sub-sp. **aucma** Swinhoe 1893: ♂ Shillong: type B.M. Fig Lep Ind as *homolea*.
Synonyms. *marta* and *perara* Swinhoe 1893: ♂ Shillong: types B.M.
B.M. 23 ♂ 1 ♀ Khasia Hills. 1 ♂ 1 ♀ Manipur. 7 ♂ Naga Hills. 1 ♂ Pemako, S.E. Thibet. 2 ♂ Katha, N. Burma.
(g). ♂ 16 mm. As *aucma*: upf cell spot absent: below darker and markings more suffused. Upper branch of cuiller without a crest; both branches slender, pointing upwards.

Sub-sp. **handa** nov: ♂ Thandaung, Karen Hills: W. H. Evans: 1st Nov. 1920: type B.M.
B.M. 3 ♂ Sadon and 1 ♂ Htawgaw, N. Burma. 4 ♂ 1 ♀ S. Shan St. 5 ♂ Karen Hills.
(h). Large, ♂ F 18 mm. Upf as *aucma*, but spots small and separate. Unh unmarked except for some patchy ochreous scaling. Clasp as in *aucma*.

Sub-sp. **perfossa** South 1913: 1 ♂ Mishmi Hills: type B.M.
B.M. Only the type.
(i). ♂ F 17 mm. Like *molta*: upf cell spot less conspicuous: unh markings rather more suffused. Clasp resembles *filda*, but the foot-stalk is much broader and more serrate.

Sub-sp. **homolea** Hewitson 1868: ♂ Singapore: type B.M. Fig Hewitson 1876; Distant 1886.
B.M. Only the type: obtained by Wallace, perhaps on Mt. Ophir.
(j). ♂ F 16–18 mm. Upf as in *molta*. Uph generally with a conspicuous whitish area in spaces 4–5. Below, typically with very conspicuous sharply defined markings: unf submarginal spots continuous to dorsum: unh central spots well separated. Some specimens are smaller and much less marked. Inner face of cuiller between the two divergent branches is continuously serrate, as in *egena* and *hindu*.

Sub-sp. **nephele** Leech 1894: ♂ O Mei Shan: type B.M.: figured. Fig Seitz, vol. I.
B.M. 1 ♂ 1 ♀ Chekiang. 9 ♂ 1 ♀ W. Szechwan (Ta Tsien Lou area). 1 ♀ Kwei Chow. 1 ♂ Kwang Si. 3 ♂ Fukien.

14a (13). Cilia unchequered.
14b (16a). Unh markings generally ill defined and never of closely packed scales.
14 (15). Cuiller of clasp with 2 branches. Gnathos horns curved and sharply pointed. Upf cell spot present or absent, discal spots overlapping, 2 apical spots. ♂ F 15 mm. Unh very variable.

arcuata Evans 1937: ♂ Karen Hills, Burma: type B.M. Fig Lep Ind, pl. 818/1 ♂ ♀, as *sikkima*: genitalia fig Elwes & Edwards 1897 as *sikkima*.
B.M. 29 ♂ 1 ♀ Sikkim. 16 ♂ 2 ♀ Assam. 32 ♂ 15 ♀ Burma (to Mergui). 4 ♂ 1 ♀ Indo-China. 1 ♂ Malaya.

15 (14). Cuiller of clasp with only one branch. Gnathos horns straight and hooked as usual (in *homolea*, etc.). Upf cell spot present, discal spots separated, 2 apical spots. Unh markings obscure. ♂ F 16 mm.

zandra Evans 1937: ♂ Java: type B.M.
B.M. Only the type.

16a (14b). Unh central and post-discal markings conspicuous and solid, composed of closely packed scales. Unf with a more or less conspicuous whitish streak at base of space 6 and usually a whitish spot in space 1b. Above with greenish hairs on basal half of dorsum F and over most of H.

16 (17a). ♂ upf stigma in space 1b flanked by diagonally placed grey patches. Uncus, seen ventrally, with a very narrow deep cleft: gnathos horns very long, slender, centrally hooked: cuiller slender, unbranched, ending in a hollowed disc: foot-stalk broad and rounded. Unh submarginal spots in a straight line directed to the end of vein 6. ♂ F 15–16 mm.

luteisquama Mabille 1876: ♂ "Himalaya": type B.M. Fig Seitz as *sulphurifera*, pl. 171 c, underside only and pl. 171 d as *beturia* ♂.
Synonym. *bazilana* Fruhstorfer 1911: ♂ Bazilan: type B.M.
B.M. 1 ♂ Palawan. 17 ♂ Luzon. 10 ♂ 1 ♀ Mindoro. 4 ♂ 1 ♀ Mindanao. 1 ♂ Bazilan. 4 ♂ 5 ♀ "Philippines".

17a (16). ♂ upf stigma without such grey patches.

17 (18). Uncus with a deep, broad, U-shaped cleft. Unh as in *luteisquama* rather than *beturia*.

dante. 3 sub-species.

(a). Cuiller with a long central branch: foot-stalk bifid at end. ♂ F 16 mm.

Sub-sp. **dante** nov: ♂ Negros: lowlands: Feb. 1896: J. Whitehead: type B.M.
B.M. Only the type.

(b). Cuiller with a short central spine: foot-stalk bifid. ♂ F 14 mm.

Sub-sp. **luzona** nov: ♂ Luzon, Palali, Benguet: 2,000 ft.: 29th June 1913: A. E. Wileman: type B.M.
B.M. 8 ♂ 2 ♀ Luzon.

(c). Cuiller without a branch, ending in a short beak: foot-stalk short, narrow, undivided. Above darker than any other Philippine specimens of *Halpe*. ♂ F 15 mm.

Sub-sp. **tilia** nov: ♂ Mindanao: J. Waterstradt: 1902–04: type B.M.
B.M. Only the type.

18 (17). Uncus with a shallow, V-shaped cleft: gnathos horns hooked at end. Unh submarginal series of spots curved, parallel to termen, ending at vein 6 well before its end.

beturia. 2 sub-species.
(a). Cuiller unbranched, expanded at end into a large, serrate beak: foot-stalk bifid. ♂ F 16 mm.

Sub-sp. **sulphurifera** Herrich-Schäffer 1869: ? loc. Fig Seitz, pl. 171c, d as "*sulfurifera*": ♀ (recte ♂) and ♂ (recte ♀), not U, which is *luteisquama*. Plötz 1884 fixed the locality as "Philippines" and the expanse he gives accords better with this species than with others from the area.
Synonym. *joloana* Fruhstorfer 1911: ♂ Jolo Is.: type B.M.
B.M. 2 ♂ 2 ♀ Mindoro. 3 ♂ 1 ♀ Mindanao. 1 ♂ Luzon. 1 ♂ Jolo. 4 ♂ 2 ♀ Philippines.
(b). Larger, ♂ F 17½ mm. Cuiller with 4 branches: foot-stalk short, rounded. Upf and unh markings much whiter.

Sub-sp. **beturia** Hewitson 1868: ♂ Celebes: type B.M.
Synonym. *majuscula* Elwes & Edwards 1897: ♂ Minahassa: figured. Fig in Seitz. Either an abnormal specimen of *beturia* or a mis-labelled specimen of *homolea*.
B.M. 16 ♂ 11 ♀ Celebes.

19a (13b). F termen straight and shorter than dorsum. All small, ♂ F 14–15 mm.
19b (22a). Unh with a well-marked central pale band.
19 (20a). Gnathos horns peculiar, lower half stout and tapered to a point, before which arises the slender upper half with an inwardly curved, pointed tip. Cuiller with a lower branch: foot-stalk unusually long and pointed. ♂ upf stigma in space 1b flanked by grey patches. Unh markings yellow.

***flava** Evans 1926: ♂ Tavoy: type B.M.
B.M. 20 ♂ 3 ♀ Burma (Karens to Mergui). 1 ♂ W. Siam. 1 ♂ Borneo.

20a (19). Gnathos horns normal, hooked at tip.

20 (21). Inner face of cuiller without a lower branch, concave and evenly serrate between the pointed ends.

auriferus. 2 sub-species.

(a). Upf with a stigma and well-developed spots upf.

Sub-sp. **toxopea** Evans 1932: ♂ Java: type B.M.

B.M. 1 ♂ Pen Siam. 1 ♂ Malaya. 1 ♀ Sumatra. 4 ♂ 2 ♀ Java. 2 ♂ 1 ♀ Borneo. 1 ♂ Palawan.

(b). Upf without a stigma: spots reduced. Unh markings much darker yellow and narrower.

Sub-sp. **auriferus** Elwes & Edwards 1897: ♂ Nias: type B.M.: figured. Fig Seitz.

Synonym. *hazis* De Nicéville 1897: ♂ Nias: figured.

B.M. 9 ♂ 1 ♀ Nias. 1 ♂ Tavoy. 1 ♂ Malaya.

21 (20). Inner face of cuiller with a lower branch and not continuously serrate. Unh band yellowish white.

***kusala** Fruhstorfer 1911: ♂ Annam: type B.M.

Synonym. *diana* Evans 1932: ♂ Tavoy: type B.M.

B.M. 28 ♂ 5 ♀ Burma (Ataran to Mergui). 10 ♂ 1 ♀ Siam. 2 ♂ Annam. 1 ♂ Malaya.

22a (19b). Unh markings suffused, no well-defined pale central band.

22b (25). Upf with the usual spots well marked.

22c (24). Gnathos horns as long as uncus and with a conspicuous hook commencing well before the long, erect point.

22 (23). Inner face of cuiller nearly straight, unbranched.

pelethronix. 2 sub-species.

(a). Upf discal spots overlapping. Unh markings yellower and better defined.

Sub-sp. ***pagaia** Evans 1932: ♂ Tavoy: type B.M.

B.M. 22 ♂ 3 ♀ Burma (Karens to Mergui).

(b). Upf discal spots more usually separate. Unh markings duller and more suffused. Generally larger.

Sub-sp. **pelethronix** Fruhstorfer 1910: ♀ Java: type B.M. Fig Rhop Java, ♂ as *homolea* ♂, ♀ as *pelethronix*: latter fig reproduced in Seitz.

Synonyms. *limbanga* Evans 1932: ♂ Borneo: type B.M.

sutapa Moore. ♀ Java: type B.M.: nomen nudum published by Moore 1857 and the specimen so marked by him taken as type.
B.M. 5 ♂ Malaya. 8 ♂ Sumatra. 14 ♂ 2 ♀ Java. 5 ♂ 1 ♀ Borneo.

23 (22). Inner face of cuiller with two well-marked branches: foot-stalk broad and serrate. Only separable on genitalia.
***wantona** Swinhoe 1893: ♂ Shillong, Assam: type B.M.
Synonym. *confusa* Evans 1932: ♂ Manipur: type B.M.
B.M. 14 ♂ Assam. 21 ♂ 1 ♀ Burma (N. Shan St. to Ataran). (Malaya, coll Eliot.)

24 (22c). Gnathos horns very much shorter than uncus, slender and ending in a very small hook. Inner face of cuiller with 2 branches: foot-stalk long, broad and serrate. Upf with overlapping discal spots and cell spot more conspicuous than usual. Unh with brighter ochreous scaling.
veluvana. 2 sub-species.
(a). Upper branch of cuiller slender: foot-stalk upright.
Sub-sp. ***brevicornis** Evans 1932: ♂ Karens: type B.M.
B.M. 7 ♂ 1 ♀ Burma (Karens, Ataran). 1 ♂ Sumatra. 2 ♂ Borneo. (Malaya, coll Corbet.)
(b). Upper branch of cuiller broad: foot-stalk with the base enlarged and outer edge diagonal. Generally larger.
Sub-sp. **veluvana** Fruhstorfer 1911: ♂ Java: type B.M. ♀ fig Rhop Java, pl. 61 b, as *homolea* ♀ (♂, pl. 61 a is *pelethronix*).
B.M. 10 ♂ 4 ♀ Java.

25 (22b). Upf unmarked and stigma absent in ♂. Unh overlaid with grey scaling, intensified to indicate faintly the discal band. Unf usually with traces of spots.
hieron De Nicéville 1894: ♂ Sumatra: figured. Fig in Seitz.
B.M. 1 ♂ Perak. 18 ♂ 2 ♀ Sumatra.

G.13. PITHAURIA Moore 1878: type *murdava* Moore: sole species included.
Synonym. *Pithauriopsis* Wood-Mason & De Nicéville

1886: type *marsena* Hewitson: sole species included was *aitchisoni* Wood-Mason & De Nicéville, which is a synonym of *marsena*.

1a (3). ♂ upf no stigma: uph disc above cell clothed with long hairs and veins 6 and 7 more or less "hair-pinned". Unh and apex unf overlaid with grey scaling: unh more or less spotted.

1 (2). ♂ above clothing bluish grey: unf with a conspicuous yellowish white area mid dorsum.

stramineipennis. 2 sub-species.

(a). ♂ unf with a double pale cell spot. ♀ unf with a double pale spot in space 1b: unh more or less overlaid with grey scaling. DSF ♂ much paler than WSF and unf pale dorsal area more extensive. WSF ♀ with more or less developed pale spots and dark discal markings: DSF ♀ unmarked and very pale unh. ♂ F 20–22 mm.

Sub-sp. **stramineipennis** Wood-Mason & De Nicéville 1886: ♂ Cachar: figured. Fig Lep Ind; Distant, as *murdava*; Seitz, pl. 171 h, first of the 2 figures of *murdava*.

B.M. 29 ♂ 13 ♀ Sikkim. 21 ♂ 1 ♀ Assam. 30 ♂ 1 ♀ Burma. 1 ♂ Hainan. 2 ♂ Malaya. 1 ♂ Sumatra.

(b). Smaller, ♂ F 18 mm., wings more rounded. ♂ unf cell with a pale area unconnected to the dorsal white area filling space 1b: unh scaling very dense. ♀ unf no dorsal pale area: unh densely overlaid pale greenish blue scales. Gnathos horns longer.

Sub-sp. **linus** Evans 1937: ♂ O Mei Shan: fig Leech, pl. 41/19: type B.M.

B.M. 1 ♂ Fukien. 9 ♂ 3 ♀ W. Szechwan (Ta Tsien Lou area).

2 (1). ♂ above clothing pale to dark ochreous. ♂ ♀ unf no conspicuous whitish area in space 1b, though dorsum, particularly in DSF, may be paler than rest of wing. ♂ F 20 mm.

murdava Moore 1865: ♂ Darjiling: type B.M. Fig Moore 1878; Lep Ind; Seitz, pl. 171 h ♂, second figure only.

Synonym. *weymeri* Plötz 1883: ♂ "Calcutta".

B.M. 38 ♂ 2 ♀ Sikkim. 30 ♂ 1 ♀ Assam. 21 ♂ 1 ♀ Burma (to Ataran). 2 ♂ Siam. 1 ♂ Indo-China. 1 ♂ "Malaya". 1 ♂ "Borneo".

3 (1a). ♂ upf with a *Halpe*-like stigma and veins 6 and 7 H hair-pinned. ♂ above greenish ochreous. Unh ♂ ♀ ferruginous without any super-scaling, but with pale spots exhibiting a great range of variation, particularly in the ♀, where there may be a broad white band. ♂ F 22 mm.

marsena Hewitson 1866: ♀ Sumatra: type B.M. Fig Hewitson 1873; Lep Ind; Rhop Java; Seitz.

Synonyms. *ornata* Felder 1867: ♀ Java: figured: type B.M. Fig Seitz.

subornata Plötz 1883: ♀ Java.

aitchisoni Wood-Mason & De Nicéville 1886: ♂ Cachar: figured.

uma De Nicéville 1888: ♀ Karen Hills: figured. Fig Seitz and Lep Ind. An extreme form of ♀.

glauca (Staudinger MS) Elwes & Edwards 1897 = *aitchisoni*.

B.M. 1 ♂ Sikkim. 9 ♂ Manipur. 27 ♂ 1 ♀ Burma (Ataran, Tavoy). 3 ♂ Tonkin. 2 ♂ 1 ♀ Malaya. 11 ♂ 3 ♀ Sumatra. 5 ♂ 2 ♀ Nias. 16 ♂ 1 ♀ Java. 17 ♂ 7 ♀ Borneo. 1 ♂ Natuna.

H.1. ISOTEINON Felder 1862: type *lamprospilus* Felder: sole species included.

Single species. Upf with hyaline white spots. Unh with conspicuous white spots on an ochreous-green scaled dark brown ground. ♂ F 18 mm.

lamprospilus. 2 sub-species.

(a). Unh spots comparatively large and conspicuous.

Sub-sp. **lamprospilus** Felder 1862: ♂ Ning Po: type B.M. Fig Felder 1867; Seitz I.

Synonym. *vitrea* Murray 1875: ♂ Japan: type B.M.

B.M. 28 ♂ 11 ♀ Japan. 1 ♂ Chi-Li. 3 ♂ 1 ♀ Che Kiang. 2 ♂ Kwang Tung. 4 ♂ 1 ♀ Fukien. 7 ♂ 1 ♀ Kiang Si. 2 ♂ Kwang Si. 10 ♂ 4 ♀ Hupeh. 3 ♂ 6 ♀ Szechwan (Ta Tsien Lou).

(b). Unh duller; spots upf and unh smaller.

Sub-sp. **formosanus** Fruhstorfer 1910: ♂ Formosa: type B.M.

B.M. 21 ♂ 6 ♀ Formosa. 6 ♂ 3 ♀ Tonkin.

H.2. EOGENES Mabille 1909: type *alcides* Herrich-Schäffer: sole species included.
Synonyms. *Elwesia* Evans 1926: type *lesliei* Evans: fixed by author: homonym by Hampson 1894.
Chitralia Evans 1932: to replace *Elwesia*.

1 (2). Upf no spot in space 1b. Wings broad, costa H > dorsum F. Antennae obtuse, blunt: nudum 11. ♂ F 16 mm.

lesliei. 2 sub-species.

(a). ♂ upf with narrow pale brown brands thus: above vein 1 before its middle: below and above (V-shaped) origin of vein 2. Upf 3 whitish sub-apical spots. Cilia grey. Unh plain grey, an obscure whitish spot mid space 6.

Sub-sp. **elama** Wiltshire 1941: ♂ Maidan-i-Naftan, S. Persia: type B.M. Fig Wiltshire 1943.
B.M. ♂ type only.

(b). ♂ upf with only the brand over vein 1. Upf varies from spotless to 2 discal dull whitish spots in spaces 2 and 3, as well as 3 sub-apical spots, while in ♀ there is rarely a dot in the cell and over vein 1. Unh with rather sparse grey scaling on a brown ground: spotless to whitish spots in spaces 2, 5 and 6.

Sub-sp. ***lesliei** Evans 1910: ♂ Chitral: type B.M.
B.M. 10 ♂ 8 ♀ Chitral.

2 (1). Upf always with a conspicuous spot in space 1b. Wings more elongated. No ♂ brand. Antennae with the apiculus very short and compressed: nudum 7/3.

alcides. 4 sub-species.

(a). H tibiae, upper spurs present in ♀: present, vestigial or absent in ♂: in other sub-species they are more frequently absent in both ♂ and ♀. Above spots yellow: upf spot in space 3 present in ♂. ♂ F 17–18 mm.

Sub-sp. **alcides** Herrich-Schäffer 1854: ♂ Amasia: figured. Fig Seitz I.
B.M. 14 ♂ 8 ♀ Asia Minor. 4 ♂ Kurdistan. 1 ♀ Trans-Caucasus. 5 ♂ 2 ♀ Trans-Caspian.

(b). Similar, spots whiter and more numerous, more often present uph in spaces 2, 3 and 6. ♂ F 17 mm.

Sub-sp. **uraka** nov: ♂ Urak, Baluchistan: type B.M.
B.M. 16 ♂ 15 ♀ Baluchistan.
(c). Intermediate between *alcides* and *uraka*. ♂ F 18 mm. Unh darker and with a row, some pale-centred, of dark discal spots and one in cell.

Sub-sp. **chitrala** nov: ♂ Chitral: type B.M. Fig Evans 1927.
B.M. 3 ♂ Chitral.
(d). ♂ upf spots in space 3 and cell absent: uph plain: unf apical spots tend to be absent. ♀ upf discal band in spaces 1b to 3 broader, and the bases of both wings are broadly ochreous shaded. ♂ F 15 mm.

Sub-sp. **ahriman** Christoph 1884: ♂ Achal-Tekke: figured. Fig Seitz I.
B.M. B.M. 2 ♂ 2 ♀ Achal-Tekke. 2 ♂ 1 ♀ Ili River.

H.3. ACTINOR Watson 1893: type *radians* Moore: fixed by author.

Single species. Upf and uph with conspicuous, non-hyaline, pale yellow spots. Unh with white veins and bands. Cilia brown, preceded by a white line. ♂ F 17 mm.

radians Moore 1878: ♂ Dharmsala: type B.M.: figured. Fig Lep Ind.
B.M. 4 ♂ Chitral. 1 ♂ Kangra. 5 ♂ 1 ♀ Kulu. 1 ♂ Simla. 1 ♂ Dehra Dun.

I.1. IAMBRIX Watson 1893: type *salsala* Moore: fixed by author.

Synonym. *Idmon* De Nicéville 1895: type *distanti* Shepherd: fixed by author as *unicolor* Distant, which is a synonym of *distanti*.

1a (4a). Upf without a red band.
1b (3). Unh with ochreous super-scaling and a few silver dots.
1 (2). Unh silver spot in space 5 placed much nearer end cell than termen: rarely a spot in the cell. ♂ upf with an obscure brand in cell along the cubitus between the origins of veins 2 and 3. F vein 2 nearer to vein 3 than base. ♂ F 13 mm.

salsala. 2 sub-species.

(a). ♂ upf with bright non-hyaline ochreous spots in spaces 1b, 2 and 3 and basal half of costa bright ochreous. ♀ upf with usually a complete row of mostly hyaline white dots.

Sub-sp. **luteipalpis** Plötz 1886: ♀ Ceylon. Fig Lep Ind as *salsala.*

B.M. 21 ♂ 16 ♀ Ceylon. 26 ♂ 21 ♀ S. India.

(b). ♂ upf ochreous spots smaller, duller, but may be more numerous, or absent: costa not ochreous. ♀ upf the white dots absent or less numerous, nearly reaching space 1b.

Sub-sp. **salsala** Moore 1865: ♂ Sikkim: type B.M. Fig Seitz; Lep Ind, as *stellifer.*

Synonym. *vasuba* Fruhstorfer 1910: ♂ Tonkin: type B.M.

B.M. 1 ♂ 1 ♀ Kumaon. 1 ♂ Bengal. 16 ♂ 10 ♀ Sikkim. 20 ♂ 18 ♀ Assam. 27 ♂ 25 ♀ Burma. 15 ♂ 4 ♀ Siam. 6 ♂ 4 ♀ Indo-China. 4 ♂ 4 ♀ Hainan. 5 ♂ 1 ♀ Hong Kong. 18 ♂ 7 ♀ Malaya. 1 ♂ 2 ♀ Sumatra. 1 ♂ Java. 1 ♀ "Philippines".

2 (1). Unh spot in space 5 mid end cell and termen or absent, also usually a spot in cell. ♂ upf unmarked: ♀ may have a few white dots. F vein 2 nearer to base than to vein 3. ♂ F 13 mm.

stellifer Butler 1877: ♂ Malacca: type B.M. Fig Rhop Java and Seitz: ♀ fig Lep Ind, pl. 802/5a as *Aeromachus indistincta.*

Synonyms. *mergus* Plötz 1884: Philippines.

niasicus Fruhstorfer 1910: ♂ Nias: type B.M.

B.M. 12 ♂ 4 ♀ S. Burma. 4 ♂ 1 ♀ Siam. 6 ♂ 6 ♀ Malaya. 25 ♂ 12 ♀ Sumatra. 18 ♂ 5 ♀ Java. 13 ♂ 5 ♀ Nias. 2 ♂ 1 ♀ Batoe. 1 ♂ 1 ♀ Mentawi. 18 ♂ 6 ♀ Borneo.

3 (1b). Unh chocolate. Unmarked above or below. ♂ upf with a brand over the second quarter of vein 1. Palpi shorter. ♂ F 14 mm.

distanti Shepherd 1937: to replace *unicolor.*

Synonym. *unicolor* Distant 1886: ♀ Malacca: figured. Homonym by Moore 1883.

B.M. 1 ♂ Victoria Point, S. Burma. 3 ♂ 2 ♀ Siam. 1 ♂ 1 ♀ Malaya. 1 ♂ Sipora. 1 ♂ Siberut. 1 ♂ Batoe. 1 ♀ Nias. 2 ♂ Sumatra. 1 ♂ 2 ♀ Borneo.

4a (1a). Upf with a red band. Unh with ochreous superscaling, unmarked. ♂ upf with a brand over the second quarter of vein 1: unf with hair tuft from dorsum over a whitish patch mid space 1b: uph with a speculum between cell and costa.

4 (5). Upf red band narrow, to 2 mm.; not wider than the dark area to termen in ♂. ♂ F 13 mm.

obliquans. 2 sub-species.

(a). ♂ upf red band suffused, may be divided by dark veins.

Sub-sp. **obliquans** Mabille 1893: ♂ Java: type B.M. Fig Seitz as *sindu.*

B.M. 1 ♂ S. Burma. 1 ♀ Siam. 17 ♂ 3 ♀ Malaya. 18 ♂ 5 ♀ Sumatra. 1 ♂ Banka. 7 ♂ Java. 1 ♂ "Philippines".

(b). ♂ upf red band usually clear.

Sub-sp. **yamanta** Fruhstorfer 1910: ♂ Kina Balu: type B.M.

B.M. 26 ♂ 11 ♀ Borneo.

5 (6). Upf broad and clear red band, 5 mm. wide: twice as wide as the dark area between the band and the termen. ♂ F 14 mm.

latifascia Elwes & Edwards 1897: ♂ Kina Balu: type B.M.: figured. Fig Seitz.

B.M. 15 ♂ 8 ♀ Sumatra. 4 ♂ 1 ♀ Borneo.

I.2. KORUTHAIALOS Watson 1893: type *rubecula* Plötz: fixed by author as *hector* Watson, which is a subspecies of *rubecula.*

Synonym. *Arunena* Swinhoe 1919: type *butleri* De Nicéville: fixed by author as *nigerrima* Swinhoe, which is a synonym of *butleri.*

1 (2a). Palpi third segment thin, pointed, conspicuously protruding. ♂ unf with a groove, covered by diagonally placed scales, under the basal part of the radius, not extending as far as vein 11 and not furnished with specialised scales: into the groove fits a thin hair pencil from base of costa H. Uncus points convergent. ♂ F 16–18 mm. A protean species, usually red banded, running parallel, in respect of facies variation, with *sindu*, which it resembles very closely. In typical *rubecula* ♂ the outer edge of the red band has the upper part directed to the termen: it is bent at vein 3 and the lower part is directed to the tornus, towards which the band tapers. In typical *sindu* the outer edge of the band is straight: the band is not tapered, but along the inner edge unf it is conspicuously concave.

rubecula. 11 sub-species.

(a). ♂ typically unmarked above and below: unf dorsum inconspicuously paler. ♀ upf, and more so unf, with more or less developed traces of a suffused red band and a black bar at end of cell. Flies with a red-banded form, which in the spring has a broad band, 5 mm. wide, which does not taper tornally (*rubina* like): in the autumn the band is narrow, 2 mm. wide, and tapering (*hector* like) in ♂; broader and not tapering in ♀.

Sub-sp. **cachara** nov: ♂ Cachar Rd., Manipur: June 1913: H. C. Tytler: type B.M.

Synonym. *butleri* Wood-Mason & De Nicéville 1886: ♂ Cachar: type Calcutta Mus: homonym of *butleri* De Nicéville 1883.

B.M. 9 ♂ 8 ♀ (*cachara*), 4 ♂ 3 ♀ (*hector*), 7 ♂ 3 ♀ (*rubina*) Assam (Khasia Hills, Manipur, Naga Hills, Silhet).

(b). ♂ typically with the band narrow, 2 mm. Generally the band is as in typical *rubecula*, 3 mm. wide, redder. A few specimens grade towards *cachara*, mostly marked like ♀ *cachara*. A very few specimens are *rubina* like.

Sub-sp. **hector** Watson 1893: ♂ Toungoo: type B.M. Fig Lep Ind as *rubecula*.

Synonyms. *avidha* Fruhstorfer 1910: ♂ S. Annam: type B.M. Near *cachara*.

gopaka Fruhstorfer 1910: ♂ Tonkin: type B.M. Like *rubecula*.

B.M. 60 ♂ 20 ♀ Burma. 7 ♂ 3 ♀ Siam. 10 ♂ 2 ♀ Indo-China. (c) All typical *rubecula*, band red, 3 mm. wide, tapering tornally in ♂.

Sub-sp. **rubecula** Plötz 1882: ♂ Borneo. Fig Swinhoe 1908; Seitz; Distant 1886, pl. 34/28 ♀, as *xanites*.
B.M. 6 ♂ 2 ♀ Pen Siam. 22 ♂ 3 ♀ Malaya. 30 ♂ 17 ♀ Borneo (not Kina Balu). 2 ♂ 1 ♀ Natuna.
(d). Larger, 18 mm. ♂ upf red band broad, 5 mm.: unf extending to dorsum and not tapering tornally.

Sub-sp. **rubina** nov: ♂ Kina Balu: type B.M.
B.M. 15 ♂ 2 ♀ Kina Balu, Borneo. 1 ♂ 1 ♀ W. Sumatra.
(e). ♂ typically like *rubecula*, band narrower and the outer edge is ragged: ♀ as *rubecula*. The dark form (*sumatrana*) is unmarked upf or has a suffused red spot at upper end of cell and sometimes a fainter lower spot: unf these two spots are always present, enlarged, clearer, separate or just united: ♀ as *rubecula* ♀, but band upf narrower.

Sub-sp. **namata** Fruhstorfer 1910: ♂ Sumatra: type B.M.
Synonym. *sumatrana* Evans 1932: ♂ Sumatra: type B.M.
B.M. 17 ♂ 4 ♀ (*bamata*), 11 ♂ 2 ♀ (*sumatrana*) Sumatra. 7 ♂ 4 ♀ (*sumatrana*) Mentawi Is. 1 ♂ 1 ♀ (*namata*) Batoe Is.
(f). ♂ unmarked above or below: ♀ may have traces of a red band upf, but is unmarked unf.

Sub-sp. **niasicus** Fruhstorfer 1910: ♀ Nias: type B.M.
B.M. 8 ♂ 5 ♀ Nias.
(g). Typical dark form resembles *sumatrana*, but is larger and better marked. ♂ upf with a conspicuous red spot at upper end of cell: much enlarged unf and just joining a lower spot at base of space 3: grades one way to a form unmarked upf and only an upper red spot unf: the other way to a form with a triangular red band upf, divided centrally and tapering tornally: ♀ upf band tapering tornally and marked by a dark bar. The banded form is smaller and like *namata*.

Sub-sp. **verona** nov: ♂ Java: type B.M. Fig Rhop Java and Seitz as *verones*.
B.M. 20 ♂ 8 ♀ (*verona*), 2 ♂ (*namata*) Java.
(h). Small *namata*-like form: upf band short, triangular, centred by a black bar at end cell: unf similar, but no black bar. A very constant series.

Sub-sp. **balina** nov: ♂ Bali: type B.M.
B.M. 6 ♂ Bali.

(i). Typically ♂ upf with only a red spot in space 2, surmounted by obscure suffused spots in spaces 3 and 4: unf the band enlarged, also a large upper spot above end cell. Of the other 2 specimens, one is unmarked and the other resembles *balina*, but the band is longer and not tapered.

Sub-sp. **ponta** nov: ♂ Palawan: type B.M.

B.M. 1 ♂ (*ponta*), 1 ♂ (*niasicus*), 1 ♂ (*balina*) Palawan.

(j). Just like a large *niasicus*, ♂ F 17 mm.: wings more produced and termen F straight.

Sub-sp. **atra** nov: ♂ Mindanao: type B.M.

B.M. 1 ♂ W. Sumar. 3 ♂ Mindanao.

(k). A complete contrast to *atra*. ♂ upf band very broad, 5 mm., not tapering: like *rubina*, but the band is bright orange yellow instead of red.

Sub-sp. **luzonensis** Fruhstorfer 1910: ♂ Luzon. Fig Seitz.

B.M. 9 ♂ 3 ♀ Luzon. 3 ♂ Philippines (probably Luzon).

2a (1). Palpi third segment short, stout, blunt, not protruding. Ends uncus divergent.

2b (4). F expanse 16 to 18 mm.

2 (3). ♂ unf groove under radius as in *rubecula*. Above and below unmarked, but differing from other dark forms in having the dorsal area unf conspicuously paler.

butleri De Nicéville 1883: ♂ Sikkim: figured. Later, 1886 confused with *butleri*, a quite different species, described by Wood-Mason & De Nicéville from Cachar, which is a *rubecula* form.

Synonym. *nigerrima* Swinhoe 1919: ♂ Assam: type B.M.

B.M. 40 ♂ Sikkim. 20 ♂ 2 ♀ Assam. 1 ♂ N. Shan St. 10 ♂ 2 ♀ S. Shan St. 1 ♂ Ataran.

3 (2). ♂ unf groove below radius longer and filled with a double row of white shining scales, more or less covered with brown scales. Generally resembles *rubecula* and varies geographically in the same way, but does not seem to be dimorphic.

sindu. 6 sub-species.

(a). ♂ upf band narrow and tending to be divided by dark veins, sometimes almost absent and on unf usually divided.

Sub-sp. **monda** nov: ♂ Naga Hills: type B.M. Fig Lep Ind, pl. 790/3 as *butleri*.
B.M. 10 ♂ 2 ♀ Assam (Manipur and Naga Hills). 1 ♂ N. Burma (Katha).
(b). ♂ upf band complete, but variable in width and colouring: unf of equal width throughout and always reaches dorsum.

Sub-sp. **sindu** Felder 1860: ♂ Malaya: type B.M.
Synonyms. *xanites* Butler 1870: ♂ Sarawak: type B.M. Fig Butler 1877; Lep Ind; Seitz; Distant's fig is of *rubecula*. *laetitia* Plötz 1882: ♂ Borneo: copy unpublished plate in B.M.
B.M. 31 ♂ 7 ♀ Burma (Karens to Tavoy). 1 ♀ W. Siam. 27 ♂ 12 ♀ Malaya. 25 ♂ 11 ♀ Sumatra. 1 ♂ Batoe Is. 6 ♂ 2 ♀ Siberut. 29 ♂ 6 ♀ Borneo. 2 ♂ "Philippines".
(c). ♂ upf band decreasing tornally and not extending into space 1b. Unf band reduced tornally and broken up. ♀ band narrow.

Sub-sp. **rudra** Evans 1942: ♂ Sipora Is.: type B.M.
B.M. 2 ♂ 1 ♀ Sipora Is.
(d). Above and below unmarked. Only distinguishable from *rubecula niasicus* by the palpi, genitalia and secondary sexual characters.

Sub-sp. **tanda** nov: ♂ Nias: type B.M.
B.M. 5 ♂ 4 ♀ Nias.
(e). ♂ typically upf with a large upper and smaller lower spot: latter may be absent, or the two may be conjoined. Unf band always broad and continuous, as in *sindu*.

Sub-sp. **javanites** Staudinger 1889: ♂ Java. Fig Rhop Java; Seitz.
Synonym. *haraka* Fruhstorfer 1910: ♂ Java: type B.M.
B.M. 55 ♂ 20 ♀ Java.
(f). ♂ upf like *rubecula ponta*, an obscure shaded red band from lower end cell to vein 2. Unf a shaded red area above upper end of cell, in addition to the lower area, as on upf.

Sub-sp. **palawites** Staudinger 1889: ♂ Palawan. Fig Seitz.
B.M. 2 ♂ Palawan.

4 (2b). ♂ F expanse 20–26 mm.

focula. 3 sub-species: genitalia alike.

(a). Secondary sexual characters as in *rubecula.* Orange band broad, from 5 to 7 mm., as in *rubecula rubina.*

Sub-sp. **kerala** De Nicéville 1896: ♂ Sumatra: figured.

B.M. 21 ♂ 8 ♀ Sumatra.

(b). Secondary sexual characters as in *sindu.* Band as *kerala*, but redder, always wide, 7 mm.

Sub-sp. **frena** nov: ♂ Kina Balu: type B.M.

B.M. 11 ♂ 1 ♀ Borneo.

(c). Secondary sexual characters as in *rubecula.* Upf band much reduced and shaded, may be only large spots in spaces 2 and 3: spot end cell, when present, marked by a black bar at end cell.

Sub-sp. **focula** Plötz 1882: ♂ Java. Fig Seitz. Fig Rhop Java and Seitz.

Synonym. *kophene* De Nicéville 1896: ♀ W. Java: figured.

B.M. 5 ♂ 8 ♀ Java. 1 ♂ 1 ♀ N.E. Sumatra.

I.3. PSOLOS Staudinger 1889: type *fuligo* Mabille: sole species included was *ulunda*, which is a synonym of *fuligo.* Synonym. *Sancus* De Nicéville 1891: type *fuligo* Mabille: type fixed as *subfasciatus* Moore, which is a sub-species of *fuligo.*

Single species. Above unmarked brown. Below with more or less well-defined paler spots and patches. ♂ unf with an oval brand under the origin of vein 2.

fuligo. 3 sub-species.

(a). Below pale areas and markings purplish white and conspicuous. ♂ unf brand long. Smaller, ♂ F 18 mm.

Sub-sp. **subfasciatus** Moore 1878: ♂ Upper Tenasserim: type in B.M. Fig Wood-Mason & De Nicéville 1886 and Lep Ind, as *pulligo.*

B.M. 20 ♂ 14 ♀ S. India. 12 ♂ 7 ♀ Assam. 22 ♂ 6 ♀ Burma. 4 ♂ Siam. 4 ♂ Indo-China.

(b). Below, pale areas faint and spots dull yellow. ♂ F 20 mm.

Sub-sp. **fuligo** Mabille 1876: ♀ Java. Fig Rhop Java as *pulligo.*

Synonyms. *forensis* Plötz 1884: ♂ Borneo. Fig Seitz.
kethra Plötz 1884: ♂ Philippines. Fig Seitz.
ulunda Staudinger 1889: ♂ Palawan.
B.M. 1 ♂ 1 ♀ Victoria Point, S. Burma. 2 ♂ 1 ♀ Peninsular Siam. 8 ♂ 5 ♀ Malaya. 7 ♂ 1 ♀ Sumatra. 1 ♂ Sipora. 12 ♂ 12 ♀ Borneo. 14 ♂ 9 ♀ Java. 2 ♂ 1 ♀ Palawan. 15 ♂ 7 ♀ Philippines (Luzon, Mindoro, Mindanao, Bazilan, Los Banos).

(c). Darker with a strong violet gloss: below, unmarked. ♂ unf brand small and inconspicuous. ♂ F 18 mm.

Sub-sp. **fuscula** Snellen 1878: ♂ Bonthain: figured.
Synonym. *celunda* Staudinger 1889: ♂ Minahassa.
B.M. 18 ♂ 7 ♀ Celebes.

I.4. STIMULA De Nicéville 1898 (Dec. 10th): type *swinhoei* Elwes & Edwards: fixed by author.
Synonyms. *Watsonia* Elwes & Edwards 1897: type *swinhoei* Elwes & Edwards 1897: sole species included: homonym by Folin 1879.
Watsoniella Berg 1898 (Dec. 17th): to replace *Watsonia.*

Single species. Brown, unmarked.

swinhoei. 2 sub-species.

(a). Above uniform. Unf outer half rather paler and dorsum, below vein 2, pale yellowish brown. ♂ F 24 mm.

Sub-sp. **swinhoei** Elwes & Edwards 1897: ♂ Khasi Hills: type B.M.: figured. Fig Lep Ind and Seitz.
B.M. 14 ♂ Sikkim. 4 ♂ 7 ♀ Assam. 1 ♂ 1 ♀ Sadon, N. Burma. 1 ♂ N. Shan States.

(b). Smaller, ♂ 16 mm. ♂ upf outer third above vein 2 much paler yellowish brown. ♀ upf with a conspicuous yellow-brown discal area, narrowing towards the costa along which it extends towards the base: dorsally the pale area is broad and shades away between veins 2 and 3: apex and termen narrowly dark brown. Unf the pale colouring in the outer half is more conspicuous, particularly in the ♀: the pale area shades away at vein 3 in ♂ and vein 4 in ♀.

Sub-sp. **disca** nov: ♀ Karen Hills, 6,000 ft.: type B.M.
B.M. 1 ♂ 2 ♀ Karens.

I.5. ANCISTROIDES Butler 1874: type *longicornis* Butler: fixed by author.

Synonyms. *Kerana* Distant 1886: type *armatus* Druce: fixed by author.

Tamela Swinhoe 1913: type *nigrita* Latreille: fixed by author as *diocles* Moore, which is a sub-species of *nigrita.*

1 (2, 3a). Above unmarked brown: unh overlaid with ochreous scales. ♂ upf sometimes with traces of brands over vein 1, on either side of vein 2 and under cubitus up to origin of vein 3: frequent in *diocles*, absent in *nigrita* and *fumatus.*

nigrita. 4 sub-species.

(a). Large, ♂ F 26 mm. Unf apex and unh termen, broadly paler. Unf dorsum not conspicuously paler as in other sub-species.

Sub-sp. **diocles** Moore 1865: Bengal. Fig Lep Ind; Seitz ♀. B.M. 14 ♂ 2 ♀ Sikkim. 1 ♀ Bhutan, 15 ♂ 2 ♀ Assam. 2 ♂ 1 ♀ N. Shan St. 1 ♂ Karens, Burma.

(b). Smaller, ♂ F 21–23 mm. Unf apex and unh termen, the inner half of the pale area is conspicuously paler than the outer half.

Sub-sp. **maura** Snellen 1880: ♀ Sumatra. Fig Distant and Seitz ♂ as *diocles.*

Synonyms. *evaira* Fruhstorfer 1911: ♂ Siam: type B.M.
sumata Fruhstorfer 1911: ♂ Nias: type B.M.
savara Fruhstorfer 1911: ♂ Borneo: type B.M.

B.M. 11 ♂ 4 ♀ S. Burma (Karens to Mergui). 13 ♂ 3 ♀ Siam. 11 ♂ 8 ♀ Malaya. 7 ♂ 8 ♀ Sumatra. 1 ♂ 1 ♀ Sipora. 1 ♂ Banka. 13 ♂ 5 ♀ Nias. 9 ♂ 5 ♀ Borneo.

(c). Similar, but darker: marginal pale areas uniform, as in *diocles.*

Sub-sp. **nigrita** Latreille 1824: ♂ Java: type B.M.

Synonym. *vasuba* Fruhstorfer 1911: ♂ Java: type B.M.

B.M. 12 ♂ 7 ♀ Java.

(d). Similar to *nigrita*, but very much paler.

Sub-sp. **fumatus** Mabille 1876: Philippines. Fig Seitz.

Synonym. *prabha* Fruhstorfer 1911: ♂ Bazilan: type B.M.

B.M. 1 ♂ Palawan. 11 ♂ 7 ♀ Philippines (Mindanao, Mindoro, Luzon, Bazilan).

2 (1, 3a). Upf unmarked: uph tornal ½ to ¾ yellow. ♂ F 25 mm.

longicornis Butler 1874: ♂ Timor: type B.M.
Synonym. *boisduvali* Mabille 1876: ♀ Celebes: type B.M.
B.M. 3 ♂ 3 ♀ Celebes. 1 ♂ Timor.

3a (1, 2). Upf with a red or orange central band (becoming obsolete in *armatus niasana*). Uph unmarked.
3b (5a). Large, F 25–27 mm. Unh black unmarked.
3 (4). Upf with no markings external to the central band. ♂ upf with a large black brand filling the cell and unf a similar area about the base of spaces 1b and 2.

armatus. 2 sub-species.
(a). ♂ ♀ upf with a broad continuous red central band.
Sub-sp. **armatus** Druce 1873: ♂ Borneo: type B.M.: figured. Fig Distant; Seitz.
B.M. 1 ♂ Mergui (Lenya Valley). 2 ♂ Pen Siam. 16 ♂ 6 ♀ Malaya. 28 ♂ 3 ♀ Sumatra. 1 ♂ Batoe. 1 ♂ Sipora. 20 ♂ 15 ♀ Borneo.
(b). Upf band obsolete in ♂: in ♀ reduced to separated suffused red spots.
Sub-sp. **niasana** Evans 1926: ♂ Nias: type B.M.
B.M. 8 ♂ 2 ♀ Nias.

4 (3). ♀ upf orange to yellow irregular band of spots, separated by dark veins, in spaces 1b, 2 and cell, also usually with detached spots in space 3 (may be prolonged to base of space 3), space 4 (often absent) and less frequently 1 or more sub-apical spots. The ♂ is unknown and it seems not unlikely that *othonias* may prove to be a dimorphic form of *armatus*: there are no signs of intergrading.

othonias Hewitson 1876: ♀ Borneo: type B.M. Fig Seitz.
B.M. 10 ♀ Borneo.

5a (3b). ♂ F 18 mm. Unh with peculiar shining pale purple small spots seen only in a side light. Band upf continuous.
5 (6). F origin of vein 2 about mid base and origin of vein 3 as in the preceding species. Unf with pale purple spots at apex, as on unh. Band upf red.

gemmifer. 3 sub-species.

(a). ♂ upf inner edge of band abruptly angled apex-wards at the radius, width being reduced from 5 to 3 mm.

Sub-sp. **gemmifer** Butler 1877: ♂ Malacca: type B.M. Fig Distant.

B.M. 2 ♂ 2 ♀ Tavoy. 1 ♂ 1 ♀ Victoria Point, S. Burma. 1 ♂ Pen Siam. 12 ♂ 4 ♀ Malaya. 13 ♂ 4 ♀ Sumatra. 4 ♂ 3 ♀ Batoe Is.

(b). ♂ upf band paler and very broad, decreasing evenly from 8 mm. to 2 mm. at costa. ♀ band narrow and suffused.

Sub-sp. **dorna** nov: ♂ Sipora Is.: type B.M.

B.M. 2 ♂ 1 ♀ Sipora Is. 2 ♂ 1 ♀ Siberut Is.

(c). ♂ upf band evenly decreasing from 5 mm. in middle to 3 mm. at costa and dorsum.

Sub-sp. **dombya** Fruhstorfer 1911: ♂ Borneo: type B.M. Fig Seitz as *gemmifer*.

B.M. 14 ♂ 3 ♀ Borneo.

6 (5). F origin of vein 2 much nearer to base than to origin vein 3. Unf without pale purple spots, but with some red scaling at apex. ♂ upf band yellower and extending nearly to base along vein 1: uph with yellow hairs at base and on thorax. ♀ upf band red and as in *armatus*.

fulgur De Nicéville 1894: ♀ Sumatra: figured. ♂ fig by De Nicéville 1895: ♀ fig Seitz.

B.M. 1 ♂ Pen Siam. 2 ♂ Malaya. 4 ♂ 2 ♀ Sumatra. 1 ♂ Batoe Is.

I.6. NOTOCRYPTA De Nicéville 1889: type *curvifascia* Felder: fixed by author.

Synonym. *Plesioneura* C. & R. Felder 1862: type *curvifascia* Felder: fixed by Butler 1870: homonym by Macquart 1855.

1a (7a). Upf band not (or only just) entering base of space 3 and usually not extended above radius to costa. Antennae usually white or yellow ringed at base of club. Body brown below. F origin of vein 4 nearer to origin of vein 3 than to origin of vein 5.

1b (5a). Upf no trace of apical spots in spaces 6 to 8: often, particularly in ♀, a dot in space 4 and rarely another in space 5.

1c (3a). F termen shorter than dorsum and at right-angles to it.

1 (2). ♂ F 20 mm. Upf band very broad, 6 mm. at vein 2, outer edge directed to tornus, inner edge at vein 1 nearer base than termen.

quadrata Elwes & Edwards 1897: ♂ Kina Balu: type B.M.: figured. Fig Seitz.
B.M. 2 ♂ Malaya. 3 ♂ Sumatra. 15 ♂ Borneo.

2 (1). ♂ F 15 mm. Upf band narrow, 3 mm. at vein 2: outer edge directed to above tornus and inner edge nearer to termen than to base, as in all species other than *quadrata.*

pria Druce 1873: ♂ Borneo: type B.M.
B.M. 3 ♂ Tavoy. 1 ♂ Victoria Point. 3 ♂ Pen Siam. 2 ♂ Malaya. 2 ♂ 1 ♀ Sumatra. 2 ♂ 1 ♀ Borneo.

3a (1c). F termen = dorsum and is set at an obtuse angle thereto.

3 (4). F termen straight to vein 4 and then convex to apex. H dorsum = costa. Unf band not usually continued full width to costa. The band usually elbowed and the edges irregular.

paralysos. 11 sub-species.

(a). In the first 3 forms the continuation of the cell spot unf to the costa is generally strongly marked and the band is strongly elbowed: the dot in space 4 is generally present. Ceylon specimens are dark above and below: band broad, 3 mm., and just enters base of space 3. ♂ F 17 mm.

Sub-sp. **alysia** Evans 1926: ♂ Ceylon: type B.M. Fig Lep Ceylon as *alysos,* ♂ only: the ♀ fig is of *curvifascia.*
B.M. 15 ♂ 9 ♀ Ceylon.

(b). On the Indian continent there are 2 seasonal forms: WSF with unh dark and nearly uniform: DSF with the alternating pale areas contrasting very conspicuously with the dark areas. In S. India the band is narrow, 2 mm.

Sub-sp. **mangla** nov: ♂ N. Kanara WSF: Sept. 1912: T. R. Bell: type B.M.

B.M. 14 ♂ 10 ♀ N. Kanara.

(c). Throughout the Indian area the variation is considerable. ♂ F 14–20 mm. White banding of antennae conspicuous.

Sub-sp. **asawa** Fruhstorfer 1911: ♀ Tonkin: type B.M. Fig Seitz, pl. 174g of *alysos* represents a WSF ♂; Lep Ind, pl. 803/1, 1b of *feisthamelii* ♂ is a small WSF ♂.

Synonym. *arisana* Sonan 1930: ♂ Formosa: figured.

B.M. 15 ♂ 12 ♀ Sikkim. 9 ♂ Assam. 23 ♂ 16 ♀ Burma. 14 ♂ 1 ♀ Siam. 5 ♂ 2 ♀ Indo-China. 9 ♂ 1 ♀ Hainan. 1 ♂ Foochow. 1 ♂ 1 ♀ Langkawi Is.

(d). Large, ♂ F 20 mm. Upf band wide, 3½ mm.: dot in space 4 present. Unh with a white spot in cell, often another in space 2 and rarely also in spaces 4, 5 and 6.

Sub-sp. **paralysos** Wood-Mason & De Nicéville 1881: ♂ S. Andamans. Fig Lep Ind.

Synonym. *infrapicta* Strand 1920: ♂ Andamans.

B.M. 29 ♂ 6 ♀ S. Andamans. 1 ♂ 1 ♀ "Nicobars".

(e). In the remaining forms the continuation of the band unf to the costa is ill defined or absent. The principal form in the Malay islands is large, ♂ F 19 mm., dark, wings more produced, and the central band is broad and rather straight. Unh the dark central band is broad and suffused, often with violet grey scaling about end cell, termen and at apex unf. Upf dot in space 4 usually absent in ♂.

Sub-sp. **varians** Plötz 1882: ♀ S. Asia. Fig Seitz.

Synonym. *leucographa* Plötz 1882: "India". An aberration. Fig Seitz.

B.M. 14 ♂ 8 ♀ Malaya. 1 ♂ 1 ♀ Lingga Is. 23 ♂ 13 ♀ Sumatra. 2 ♂ Banka. 19 ♂ 6 ♀ Borneo.

(f). Small, ♂ F 17 mm., band narrower, always a dot in space 4, upf: wings less produced.

Sub-sp. **teuta** nov: ♂ Nias: type B.M.

B.M. 18 ♂ 4 ♀ Nias.

(g). Upf band narrow and irregular: no spot in space 4. ♂ F 19 mm.

Sub-sp. **nitron** Evans 1942: ♂ Sipora Is.: type B.M.

B.M. 5 ♂ 2 ♀ Sipora.

(h). In Java there is a reversion to *asawa*, with the band elbowed and 2 seasonal forms. Upf band 2½ mm. and spot in space 4 usually present. ♂ F 16 to 18 mm.

Sub-sp. **sidha** Fruhstorfer 1911: ♀ Java: type B.M.
Synonyms. *asanga* Fruhstorfer 1911: ♂ Java: type B.M. *sukavata* Fruhstorfer 1911: ♂ Sumbawa: type B.M.
B.M. 23 ♂ 13 ♀ Java. 10 ♂ 5 ♀ Bali. 1 ♂ Sumbawa.
(i). A dark form resembling *sidha*. No dot in space 4 upf: band more strongly elbowed than usual. ♂ F 18 mm.

Sub-sp. **chunda** Fruhstorfer 1911: ♂ Palawan: type B.M.
B.M. 9 ♂ 1 ♀ Palawan.
(j). A dark form with a broad band. Below with violet scaling before termen H and at apex F. ♂ F 19 mm.

Sub-sp. **volux** Mabille 1883: Philippines.
Synonym. *mahima* Fruhstorfer 1911: ♂ Bazilan: type B.M.
B.M. 10 ♂ 5 ♀ Mindanao. 2 ♂ 1 ♀ Polillo. 1 ♂ W. Sumar. 5 ♂ 1 ♀ Mindoro. 10 ♂ 2 ♀ Luzon. 2 ♂ Bazilan. 4 ♂ Los Banos.
(k). Upf band narrow, 2 mm., snicked usually at vein 2 on outer edge. Unh quite plain. ♂ F 20 mm.

Sub-sp. **yaya** Fruhstorfer 1911: ♂ Celebes: type B.M. Fig Seitz.
B.M. 20 ♂ 8 ♀ Celebes. 1 ♂ Saparoea. 2 ♂ Sangir. 2 ♂ Talaut. 2 ♂ Sula Is.

4 (3). F termen straight to vein 5. H dorsum > costa. Unf band continued full width to costa (except *niasana*).

clavata. 4 sub-species.
(a). Small, ♂ F 17–20 mm. With 2 seasonal forms. DSF, unf apex and unh termen broadly with grey scaling. WSF the scaling much duller.

Sub-sp. **theba** nov: ♂ E. Dawnas DSF: 15th Jan. 1921: 500 ft.: W. H. Evans: type B.M.
B.M. 1 ♂ S. Shan St. 7 ♂ 1 ♀ Karens. 9 ♂ 6 ♀ Ataran. 5 ♂ Tavoy. 7 ♂ Mergui. 2 ♂ 2 ♀ Siam. 1 ♂ Indo-China.
(b). Large ♂ F 20–22 mm. Unh dark.

Sub-sp. **clavata** Staudinger 1889: ♀ Palawan: figured.
Synonym. *devadatta* Fruhstorfer 1911: ♂ Sumatra: type B.M.
B.M. 20 ♂ 6 ♀ Malaya. 8 ♂ 5 ♀ Sumatra. 21 ♂ 3 ♀ Borneo.

(c). Upf band broken into narrow spots and spot in space 1b may be absent. ♂ F 18 mm.

Sub-sp. **niasana** Evans 1926: ♂ Nias: type B.M.
B.M. 2 ♂ 1 ♀ Nias.

(d). ♀ upf with a broad (4 mm.) pale yellow continuous band. ♀ F 23 mm.

Sub-sp. **xantha** Evans 1942: ♂ Sipora: type B.M.
B.M. Only the type.

5a (1b). Upf or unf with at least traces of apical spots in spaces 6 to 8 and sometimes also in spaces 3, 4 or 5.

5 (6). Unf central band not produced above the radius towards costa. ♂ F 19–21 mm.

curvifascia. 3 sub-species.

(a). Upf apical area usually fully spotted, including a dot in space 3. Varies between 2 extremes. DSF, apical spots unf continued to costa: violet grey scaling intense at apex unf, centre and termen unh. WSF, apical spots not extending above vein 9 and the violet grey scaling absent or faint.

Sub-sp. **curvifascia** Felder 1862: ♂ Ningpo: type B.M. Fig Leech 1894; Seitz I.

Synonym. *restricta* Moore 1881: ♂ Ceylon: type B.M. Fig Wood-Mason & De Nicéville 1881; Leech 1894; Lep Ind: Seitz I. The fig in Rhop Java is of *feisthamelii*.

B.M. 8 ♂ 6 ♀ Ceylon. 12 ♂ 12 ♀ S. India. 1 ♂ Nepal. 13 ♂ 9 ♀ Assam. 12 ♂ 11 ♀ Burma. 3 ♂ 3 ♀ Siam. 1 ♂ 1 ♀ Indo-China. 8 ♂ 3 ♀ Formosa. 8 ♂ 4 ♀ W. Szechwan and Yunnan. 4 ♂ 2 ♀ Hong Kong. 6 ♂ 6 ♀ Liu Kiu Is. 4 ♂ 4 ♀ Japan. 9 ♂ 9 ♀ Andamans.

(b). In Malaysia the apical spotting is much reduced, as is the variation unh. In Sumatra (type *corinda*) upf is spotless except for the band: below violet scaling intense, while at apex unf and less conspicuously unh there is some conspicuous ochreous brown scaling: unf white dots in spaces 4, 8 and 9. Males from Malaya and Sumatra generally have on upf one or two dots at the apex and a dot in space 4: females and a few males resemble *chimaera*.

Sub-sp. **corinda** nov: ♂ N. Korintji Valley, S.W. Sumatra: 5,000 ft.: Sept.–Oct. 1921: C. F. & J. Pratt.

B.M. 6 ♂ 5 ♀ Malaya. 21 ♂ 7 ♀ Sumatra.
(c). ♂ upf generally with 3 dots at the apex and a dot in space 4: ♀ with a dot also in space 5.

Sub-sp. **chimaera** Plötz 1882: "India", but Plötz's unpublished fig (copy in B.M.) and his description agree better with specimens from Java.
Synonym. *fraga* Fruhstorfer 1911: ♂ Java: type B.M.
B.M. 12 ♂ 11 ♀ Java. 9 ♂ 7 ♀ Borneo.

6 (5). Unf central band continued above radius.
feisthamelii. 8 sub-species.
(a). In the first 6 sub-species the termen F in the ♂ is straight and the apex angled rather than rounded. In the first 2 forms the band is narrow, 3 mm. at vein 2 and the spot in space 1b tapers just before reaching vein 1. Chinese specimens are large, ♂ F 24 mm., and pale: the band is straighter than in other forms.

Sub-sp. **rectifasciata** Leech 1894: ♂ Moupin: type B.M.: figured. Fig Seitz I.
B.M. 12 ♂ 13 ♀ W. Szechwan (Ta Tsien Lou area).
(b). Smaller, ♂ F 18–22 mm., and darker. Varies from a DSF form with well-developed spots and violet grey shading below, to a WSF with much reduced spotting and an almost plain underside.

Sub-sp. **alysos** Moore 1865: ♂ Bengal: type B.M. ♀ fig Lep Ind, pl. 803/1b as *feisthamelii.*
B.M. 3 ♂ 3 ♀ N.W. Himalayas (Kangra, Simla). 11 ♂ 7 ♀ Sikkim. 12 ♂ 10 ♀ Assam. 19 ♂ 6 ♀ Burma. 1 ♂ Siam. 1 ♂ Indo-China. 1 ♂ 2 ♀ Malaya.
(c). In the next 4 sub-species the spot in space 1b does not taper towards vein 1. In *avattana* the spotting and violet scaling below is like *alysos*, but the band upf is broader. ♂ F 22 mm.

Sub-sp. **avattana** Fruhstorfer 1911: ♂ Java: type B.M. Fig Seitz; Rhop Java as *restricta.*
B.M. 19 ♂ 16 ♀ Java. 1 ♀ Borneo.
(d). A small edition of *avattana.* Upf spotting reduced, but, as in all previous forms, the dots in spaces 7 and 8 are present and close together. ♂ F 18–20 mm.

Sub-sp. **samyutta** Fruhstorfer 1911: ♂ Lombok: type B.M.

Synonym. *dharana* Fruhstorfer 1911: ♀ Sumbawa: type B.M.

B.M. 6 ♂ 4 ♀ Lombok. 2 ♂ Sumba. 1 ♂ 1 ♀ Sumbawa. 5 ♂ 1 ♀ Flores. 3 ♂ Wetter. 1 ♂ 2 ♀ Dili. 7 ♂ 2 ♀ Tenimber.

(e). Philippine specimens have the apical spots upf very variable and tiny, but the familiar association of the spots in spaces 7, 8 and 9 is present. Unh, as in *paralysos volux*, the submarginal violet shading is darker and conspicuous. ♂ F 18–22 mm.

Sub-sp. **alinkara** Fruhstorfer 1911: ♂ Mindanao.

B.M. 1 ♂ 2 ♀ Palawan. 1 ♂ Mindanao. 1 ♂ Luzon. 1 ♀ Polillo. 5 ♂ 1 ♀ Mindoro. 5 ♂ "Philippines".

(f). Exactly like *avattana*, but the spot in space 1b is placed nearer the termen, projecting beyond the spot in space 2 and only partially overlapped by that spot. ♂ F 23 mm.

Sub-sp. **celebensis** Staudinger 1889: ♂ S. Celebes.

B.M. 2 ♂ 2 ♀ Celebes.

(g). In the Moluccas the wing shape noticeably changes: termen F strongly convex and apex rounded. The band upf is more elbowed: below plain, no violet scaling. In the N. Moluccas the band is narrow, 3 mm. ♂ F 22 mm.

Sub-sp. **padhana** Fruhstorfer 1911: ♂ Batchian: type B.M. Fig Seitz.

Synonym. *samana* Fruhstorfer 1911: ♂ Kapaur: type B.M. ? wrong label.

B.M. 14 ♂ 13 ♀ Batchian. 12 ♂ 2 ♀ Halmaheira. 6 ♂ 1 ♀ Obi. 2 ♂ 1 ♀ Ternate. 2 ♂ New Guinea (wrong label).

(h). Upf band broader, 4½ mm. Unh generally with a white spot in cell. Upf spotting very variable, generally with a single dot in space 4. ♂ F 18–22 mm.

Sub-sp. **feisthamelii** Boisduval 1832: ♀ Amboina. Fig Ribbe 1889 as *varians*.

Synonyms. *satra* Fruhstorfer 1911: ♀ Buru: type B.M.
unipuncta Rothschild 1915: ♂ Ceram: type B.M.

B.M. 9 ♂ 4 ♀ Amboina. 12 ♂ 7 ♀ Buru. 15 ♂ 2 ♀ Ceram. 1 ♂ 1 ♀ Gisser. 1 ♂ New Guinea (wrong label).

7a (1a). Upf band generally filling base of space 3 and extended to costa. F origin of vein 4 nearer origin of vein 5 than 3.

7 (8a). Upf spot in space 1b set obliquely, with its inner edge against the outer edge of the spot in space 2. Antennae more or less yellowish or pale brown about base of club. Body below brown. ♂ F 21 mm.

renardi. 2 sub-species.

(a). Band compact. F white dots as in *waigensis*, but upf the dot in space 3 more frequently present and in ♂ band less frequently extended to costa.

Sub-sp. **renardi** Oberthür 1878: Dorey. Fig as *wokana* by Swinhoe 1908 and Seitz.

Synonyms. *insulata* Butler 1882: ♂ New Britain: type B.M.

wokana Plötz 1882: Aru.

partita Fruhstorfer 1911: ♂ New Guinea: type B.M. Fig Seitz.

affinis Rothschild 1915: ♂ Dutch New Guinea: type B.M.

angiana Joicey & Talbot 1917: ♀ Angi Lakes, D.N.G.: type B.M.

rothschildi Shepard 1937: to replace *affinis*, a homonym.

B.M. 2 ♂ 2 ♀ Key. 19 ♂ 5 ♀ Aru. 1 ♂ Waigou. 45 ♂ 38 ♀ New Guinea. 1 ♂ Mioswar. 1 ♂ Simbang. 1 ♂ Sudest. 2 ♂ Rook Is. 1 ♂ 1 ♀ Dampier. 2 ♂ 2 ♀ Vulcan Is. 1 ♂ Fergussons. 5 ♂ 3 ♀ Goodenough. 13 ♂ 1 ♀ New Ireland. 7 ♂ 1 ♀ New Britain. 4 ♂ 4 ♀ New Hanover. 2 ♂ New Lauenburg. 1 ♂ Duke of York Is. 1 ♂ Alu Is. 1 ♀ Fiji.

(b). F markings reduced so that spot in space 2 is completely separated from the cell spot: no spot in space 3 other than a slight extension of the cell spot.

Sub-sp. **roona** nov: ♂ Roon Is.: type B.M.

B.M. 13 ♂ 2 ♀ Roon Is.

8a (7). Upf spot in space 1b with its upper edge completely overlapped by the spot in space 2. Antennae plain. Body below more or less whitened.

8b (11). Above dark brown as usual, no blue colouring.

8c (10). Unf apical spots in spaces 7 and 8, when present, directed to the tornus and the spot in space 7 larger than and more frequently present than the spot in space 8. Unh chocolate brown.

8 (9). ♂ F about 21 mm. Upf spot in space 1b tapered towards vein 1.

waigensis. 4 sub-species.

(a). Upf band 3 mm. wide, compact: ♂ normally with dots in spaces 4, 7 and 8.

Sub-sp. **proserpina** Butler 1883: ♂ Aru: type B.M. Fig Waterhouse & Lyell 1914; Waterhouse 1932, as *leucogaster*.

Synonyms. *leucogaster* Staudinger 1889: ♂ Cooktown.
ribbei Fruhstorfer 1911: ♂ Key Is.: type B.M.
B.M. 12 ♂ 4 ♀ Key. 8 ♂ Aru. 12 ♂ 8 ♀ Queensland.

(b). Similar, but upf the typical spotting in the ♂ is a dot in space 4 and another in space 7: unf and ♀ upf the spotting is more profuse.

Sub-sp. **waigensis** Plötz 1882: ♂ Waigou. Fig Swinhoe 1908; Seitz.

Synonyms. *mangala* Fruhstorfer 1911: ♂ Dutch New Guinea: type B.M.
klossii Rothschild 1915: ♂ Dutch New Guinea: type B.M.
B.M. 1 ♂ 1 ♀ Sula (?). 9 ♂ 1 ♀ Misol. 4 ♂ 3 ♀ Waigou. 42 ♂ 16 ♀ Dutch New Guinea. 1 ♂ Astrolabe Range, German New Guinea. 24 ♂ 10 ♀ British New Guinea. 1 ♂ 1 ♀ Rook Is. 1 ♂ Goodenough Is. 4 ♂ New Britain. 7 ♂ 3 ♀ New Ireland. 4 ♂ 2 ♀ New Hanover.

(c). Slightly larger with a broader band and a slightly different clasp to the genitalia. ♂ upf unmarked: unf with the usual spots. This seems a constant local form: typical *waigensis* flies at the coast at Wangaar, Geelvink Bay.

Sub-sp. **wanga** nov: ♂ 25 miles from Wangaar, Nomnagihé, 2,000 feet: Jan.–Feb. 1921: C. F. & J. Pratt: type B.M.
B.M. 4 ♂ 2 ♀ type loc.

(d). Band much reduced, 1½ mm. Upf spot in space 1b separated, narrow and indented on the inner edge.

Sub-sp. **aluensis** Swinhoe 1907: ♂ Alu Is.: type B.M. Fig Swinhoe 1908; Seitz.

Synonyms. *fergussonia* Fruhstorfer 1911: ♂ Fergussons: type B.M.
trobrianda Swinhoe 1917: ♂ Kiriwini Is.: type B.M.
B.M. 3 ♂ Cyclops Mts. and 3 ♂ Roon Is. (intermediate to *waigensis*). 21 ♂ 5 ♀ German New Guinea. 6 ♂ 2 ♀

Fergussons. 1 ♂ 2 ♀ Trobriands. 1 ♂ Woodlark Is. 4 ♂ Alu Is. 1 ♂ Goodenough (flying with *waigensis*).

9 (8). Large ♂ 24 mm. Upf spot in space 1b with its lower portion produced inwardly. Resembles *waigensis* in respect of the markings.

flavipes Janson 1886: New Guinea.
B.M. 13 ♂ 6 ♀ Geelvink and Humboldt Bay. 1 ♂ 2 ♀ Eilanden River. 7 ♂ 1 ♀ Roon Is. 6 ♂ Wangaar, 2,000 ft. (flying with *waigensis wanga*). 4 ♂ 2 ♀ Utakwa Riv. 1 ♂ 1 ♀ Snow Mts., D.N.G. 5 ♂ 3 ♀ German N.G. 1 ♀ Vailala Riv., British N.G.

10 (8c). Unf sub-apical dots, when present (always in ♀) directed to the termen well above the tornus: the spot in space 8 larger and more frequently present than the spot in space 7: the only additional spot ever present is in space 4. Unh lighter brown, not chocolate. ♂ F 22 mm. Central band as in *waigensis*, but varies a great deal in width. Typically upf with 2 apical dots: frequently none.

maria nov: ♂ Owgarra, British New Guinea: A. S. Meek: type B.M.
B.M. 19 ♂ 11 ♀ Arfak Mts., 6,000 ft. 1 ♂ N.N.G. coast, Manokwari. 3 ♂ Utakwa Riv. 5 ♂ 5 ♀ Weylandt Mts. 1 ♂ Wandammen Mts. 2 ♂ German N.G. 42 ♂ 13 ♀ British N.G. (Aroa Riv., Hydrographer Mts., Mt. Tafa, Mafulu, Angabunga Riv., Mambare Riv., Mondo, Owgarra, Rawlinson Mts.).

11 (8b). Above very dark shining blue and the broad white band tinged blue. Upf dots in spaces 4, 7 and 8, the latter pair being directed to the upper part of the termen. Cilia narrowly white between veins on H. Unf at apex, and sometimes unh on outer half, veins white. ♂ F 25 mm.

***caerulea** Evans 1928: ♂ Angabunga Riv.: type B.M.
B.M. 1 ♂ 1 ♀ Weylandt Mts. 1 ♂ 1 ♀ Herzog Mts. 1 ♂ Up. Warra Riv. 5 ♂ Mambare Riv. 2 ♂ Angabunga Riv. 1 ♂ Edie Creek; all New Guinea.

I.7. UDASPES Moore 1881: type *folus* Cramer: fixed by author.

1 (2). Uph with a large white area. Upf with large white markings. Unh variegated. ♂ F 23 mm.
folus Cramer 1775: ♀ "Surinam": figured. Fig Lep Ind; Seitz.
Synonym. *cicero* Fabricius 1793: Indian Region.
B.M. 4 ♂ 1 ♀ Ceylon. 11 ♂ 11 ♀ S. India. 1 ♂ 1 ♀ Centr. Prov. 1 ♂ Orissa. 1 ♂ 1 ♀ Ganjam. 2 ♂ Bengal. 5 ♂ 1 ♀ N.W. Himalayas (Kulu, Simla). 1 ♀ Nepal. 6 ♂ 6 ♀ Sikkim. 1 ♂ 1 ♀ Bhutan. 6 ♂ 6 ♀ Assam. 10 ♂ 8 ♀ Burma. 4 ♂ 4 ♀ Siam. 3 ♂ 4 ♀ Indo-China. 4 ♂ 2 ♀ Hainan. 6 ♂ 6 ♀ Formosa. 2 ♂ 1 ♀ Kwang-Si. 1 ♂ 1 ♀ Fukien. 2 ♂ 1 ♀ Kwang Tung. 8 ♂ 3 ♀ Yunnan. 5 ♂ 2 ♀ Liu Kiu Is. 9 ♂ 4 ♀ Malaya. 9 ♂ 7 ♀ Sumatra. 1 ♂ Banka. 9 ♂ 9 ♀ Java. 6 ♂ 3 ♀ Engano. 2 ♂ 2 ♀ Bawean. 2 ♂ Lombok. 2 ♂ Sumbawa.
There is considerable seasonal variation in some localities. The geographical variation is insignificant. Chinese specimens tend to be large, with large spots.

2 (1). Uph with a small white spot mid space 4–5, sometimes absent. Unh striated. ♂ F 17 mm.
stellata Oberthür 1896: ♂ Maenia, Thibet: type B.M.: figured. Fig Seitz I.
B.M. 7 ♂ Maenia. 1 ♂ Mupin. 15 ♂ 1 ♀ Li-kiang, N. Yunnan.

J.1. SCOBURA Elwes & Edwards 1897: type *cephala* Hewitson: fixed by Lindsey 1925.
Synonym. *Mimambrix* Riley 1923: type *woolletti* Riley: fixed by author.

1a (3a). Uph unmarked. Unf tornus broadly whitish. Small, ♂ F 13 mm.
1 (2). Upf cell spot solid across cell; spot in space 2 twice as wide; no spot in space 3: spot in space 1b smaller than cell spot. Unh with patchy ferruginous scaling, silvery spots in spaces 1c, 2, 4–5 and 7, that in space 7 smallest. Cilia dark ochreous. F vein 2 nearer base than vein 3.

tytleri Evans 1914: ♂ Manipur: type B.M. Fig Evans 1914.
B.M. 1 ♂ Manipur. 1 ♂ 1 ♀ Naga Hills.

2 (1). Upf cell spot divided or two parts just conjoined: a spot in space 3: spots in cell, spaces 2 and 1b of same size. Unh spot in space 7 large. F vein 2 nearer vein 3 than base.

woolletti. 2 sub-species.

(a). Unh yellow, ferruginous round the spots, which are conspicuous in spaces 1c, 2, 4–5 and 7.

Sub-sp. **woolletti** Riley 1923: ♂ Borneo: type B.M.: figured.
B.M. 1 ♀ Manipur. 1 ♀ Siam. 1 ♂ Borneo.

(b). Unh basal third ochreous, rest ferruginous: spots in spaces 1c, 2, 4–5 small and an additional dot in space 3.

Sub-sp. ***cephalina** Evans 1932: ♂ Java: type B.M.
B.M. 1 ♂ Java.

3a (1a). Uph with one or two hyaline spots.

3 (4a). Uph with a single large hyaline spot in space 4–5. Unh grey with small black spots round the hyaline spot. Upf no spots in spaces 4 and 5. ♂ uph with an erect hair tuft from the basal half of the radius: unf basal part of vein 2 and the cubitus adjoining with glandular scaling. ♂ F 16 mm.

phiditia Hewitson 1866: ♂ Singapore: type B.M.
Synonym. *martini* Elwes & Edwards 1897: ♀ Sumatra: type B.M.: figured. Fig Seitz.
B.M. 10 ♂ Assam. 12 ♂ 2 ♀ Burma. 1 ♀ Tonkin. 1 ♂ Malaya. 3 ♂ 2 ♀ Sumatra. 1 ♂ Borneo.

4a (3). Uph with 2 hyaline spots: rarely only 1 in DSF *isota.*

4b (6a). Upf no spot in space 3.

4 (5). Unh with a conspicuous rectangular white spot in space 1c in continuation of the spot in space 2: beyond the discal spots the yellow colour becomes ferruginous. Upf always a spot in space 4. ♂ F 16 mm.

cephala Hewitson 1876: ♂ Darjiling: type B.M. Fig Elwes 1888 ♀.
B.M. 15 ♂ 2 ♀ Sikkim. 3 ♂ 1 ♀ Assam. 2 ♂ 4 ♀ Ataran, Burma.

5 (4). Unh at most an insignificant spot in space 1c and, if present, there is a corresponding small spot in space 6. DSF paler and spots reduced: unh entirely yellow. WSF darker, spots large: unh discal spots outwardly flanked by a ferruginous band. Upf white spot in space 4 rarely present in ♂. The WSF closely resembles *cephala*, but the asymmetric clasps differ. ♂ F 12–16 mm.

isota Swinhoe 1893: ♂ Khasi Hills: type B.M. Fig as *cephala* by Elwes 1888 ♂ and Lep Ind.
B.M. 13 ♂ 13 ♀ Sikkim. 30 ♂ 5 ♀ Assam. 33 ♂ 15 ♀ Burma. 5 ♂ 4 ♀ Siam. 1 ♂ Tonkin. 1 ♂ Malaya.

6a (4b). Upf with a spot in space 3.
6 (7). Upf cell spot solid across cell; no spots in spaces 4 and 5 in ♂: spot in space 1b, if present, well behind the central spots. Uph small hyaline spots in spaces 2 and 3, latter much nearer termen, sometimes a spot in space 5. Unh inner half yellow, outer half ferruginous with white spots in spaces 1c, 2, 3, 5 and 7, also a black dot at base of space 7. ♂ upf no discal stigma.

cephaloides. 2 sub-species.
(a). Large, F 17 mm. Upf spots in space 2 and cell well separated: spot in space 1b present.

Sub-sp. **cephaloides** De Nicéville 1888: ♂ Karens: figured. Fig Lep Ind.
B.M. 17 ♂ 4 ♀ Manipur and Naga Hills. 1 ♂ Bernardmyo, N. Burma. 2 ♂ N. Shan States.
(b). Smaller, ♂ 15 mm. Upf spots in space 2 and cell approximate and inner edges in line or nearly so: ♂ no spot in space 1b. Genitalia somewhat different.

Sub-sp. **kinka** nov: ♂ Tonkin: type B.M.
B.M. 1 ♂ S. Shan St. 1 ♀ Ataran. 1 ♂ Tonkin. 1 ♂ 1 ♀ Hainan.

7 (6). Upf cell spot divided or double: spots in spaces 4 and 5. ♂ upf with a narrow stigma outside spots in spaces 1b and 2. Uph 2 large discal hyaline spots in spaces 2 and 4–5. Unh ochreous with conspicuous black spots in each of spaces 1c to 7, as well as a basal spot in space 7.

coniata. 2 sub-species.
(a). Very large, ♂ F 23 mm. Upf cell spot divided into 2 equal spots.
Sub-sp. **lyso** Evans 1939: ♂ Chekiang: type Bonn, co-type B.M.
B.M. 2 ♂ 2 ♀ Chekiang.
(b). ♂ F 16 mm. Upf cell spot undivided.
Sub-sp. **coniata** Hering 1918: ♂ Tsha-Jiu-Shan (? Kwang Tung): figured.
B.M. 1 ♂ Fukien.

J.2. SUADA De Nicéville 1895: type *swerga* De Nicéville: fixed by author.

1 (2, 3). Upf with well-marked discal and apical spots as well as a short white streak in space 1b.
swerga. 4 sub-species.
(a). Uph more or less uniform brown. Large, ♂ F 17 mm.
Sub-sp. **swerga** De Nicéville 1883: ♂ Sikkim: figured. Fig Lep Ind.
Synonym. *mölleri* Moore 1883: ♂ Sikkim.
B.M. 16 ♂ 5 ♀ Sikkim. 15 ♂ 5 ♀ Assam.
(b). Similar, but constantly smaller, ♂ F 15 mm.
Sub-sp. **suava** nov: ♂ King Is., Mergui: type B.M.
B.M. 1 ♂ N. Shan St. 1 ♂ Pegu Yoma. 2 ♂ Karens. 11 ♂ 2 ♀ Ataran. 7 ♂ Tavoy. 2 ♂ Mergui. 4 ♂ 4 ♀ Siam. 1 ♂ Malaya.
(c). ♂ uph costa broadly and termen narrowly darker. ♀ uph white, with the basal third dark, as well as a radial streak in space 1b. ♂ F 16 mm.
Sub-sp. **sedata** nov: ♀ Liwa, S.E. Sumatra: type B.M.
B.M. 1 ♂ 1 ♀ Sumatra.
(d). ♂ similar. ♀ discal area pale brown with more or less well-developed white patches.
Sub-sp. **triplex** Plötz 1884: ♀ ? loc. (Java). Fig Seitz; as *swerga* in Rhop Java; as *albinus* by Roepke 1932.
Synonym. *esa* Moore 1857 (Cat Lep Mus EIC 1: 254 nomen nudum). ♀ Java, type B.M., marked by Moore.
B.M. 12 ♂ 12 ♀ Java.

2 (1, 3). ♂ upf unmarked. ♀ with minute white spots present or absent in spaces 2, 3, 6 and 7. Uph tornal quarter pure white. ♂ F 16 mm.
cataleucos Staudinger 1889: ♀ Palawan: figured. Fig Seitz. Fig Riley 1923.
B.M. 3 ♂ 3 ♀ Borneo. 3 ♂ 2 ♀ Palawan.

3 (1, 2). ♂ ♀ upf apical spots absent, discal spots as in *swerga*, no spot in space 1b. Uph tornal two-thirds clear white; base, costa and termen dark brown. ♂ F 16 mm.
albinus Semper 1892: ♂ S.W. Mindanao: figured. Fig Seitz.
Synonym. *flavea* Evans 1932 (Staudinger MS on a ♀ in B.M. from Mindanao).
B.M. 1 ♂ Bazilan. 1 ♀ Los Banos. 3 ♀ Mindanao. 6 ♂ 3 ♀ Luzon. 1 ♂ 1 ♀ Philippines.

Note. cataleucos and *albinus* might be regarded as sub-species of *swerga*, which they replace in their respective areas. But the genitalia and facies differ materially and they are considered to have attained specific status.

J.3. SUASTUS Moore 1881: type *gremius* Fabricius: fixed by author.

1a (4). Unf tornus dark beyond a central white area in space 1b, which may be absent.
1 (2a). Unh with a conspicuous black cell spot, which is at least as large as any discal spot. Variable in size, ♂ 16–18 mm., and in the presence or absence of the white spots upf and the black spots unh. Unf always with a white spot mid space 1b.
gremius. 3 sub-species.
(a). Upf with white spots. Above and unh darker.
Sub-sp. **subgrisea** Moore 1878: ♂ Ceylon: type B.M.: figured. Fig Lep Ind.
B.M. 16 ♂ 23 ♀ Ceylon.
(b). Similar, but always paler and more variable.
Sub-sp. **gremius** Fabricius 1798: India. Fig Butler 1869; Lep Ind.
Synonyms. *divodasa* Moore 1865: ♀ Bengal: type B.M.
disu Kollar 1844: Himalayas.

robsonii De Nicéville 1895: ♂ Mussoorie: figured. Fig Lep Ind.
centripuncta Seitz 1927: No loc.: figured.
B.M. 14 ♂ 14 ♀ S. India. 4 ♂ 4 ♀ C. India. 2 ♂ 2 ♀ N.W. Himalayas. 3 ♂ 5 ♀ Bengal. 11 ♂ 2 ♀ Sikkim. 10 ♂ 6 ♀ Assam. 7 ♂ 8 ♀ Burma. 1 ♂ 1 ♀ Siam. 3 ♂ 4 ♀ Hong Kong. 1 ♂ Hainan. 8 ♂ 5 ♀ Formosa (Malaya, coll Cowan.)
(c). Above unmarked in ♂, spots in space 2 and cell in ♀. Unh whitened.
Sub-sp. **chilon** Doherty 1891: ♂ Sumba.
B.M. 6 ♂ 1 ♀ Sumba. 1 ♂ 1 ♀ Flores.

2a (1). Unh the black cell spot absent or small; if present never as large as the dark discal spots in spaces 1c and 2. ♂ F 14–15 mm.
2 (3). Unf with a white spot mid space 1b. Uph no white at tornus.
minuta. 5 sub-species.
(a). Upf unmarked. Unh tornal two-thirds white. Cilia H white.
Sub-sp. **minuta** Moore 1877: ♂ Ceylon: type B.M. Fig Lep Ind; Seitz.
Synonym. *sinhalus* Plötz 1885: ♂ Ceylon.
B.M. 23 ♂ 11 ♀ Ceylon.
(b). Dark. Upf typically only with spots in spaces 2 and 3. Unh dark brown, the dark markings very faint. Cilia H dark brown.
Sub-sp. **bipunctus** Swinhoe 1894: ♂ Nilgiris: type B.M. Fig Elwes & Edwards 1897 as *sala*; Lep Ind.
B.M. 13 ♂ 12 ♀ S. India (Coorg, Nilgiris).
(c). Typically with fully developed spots upf: 2 small cell spots, spots in spaces 1b, 2, 3 and 6. Cilia H narrowly white.
Sub-sp. **aditia** Evans 1943: ♂ Sikkim: type B.M. Fig as *sala* in Seitz and Rhop Java. (Incorrectly cited by authors as *sala* Hew and *rama* Mab.)
B.M. 6 ♂ 3 ♀ Sikkim. 6 ♂ 2 ♀ Assam. 23 ♂ 11 ♀ Burma to Mergui. 10 ♂ 6 ♀ Siam. 6 ♂ 3 ♀ Hainan. 1 ♂ Java.
(d). Larger and darker. Upf spots larger, but no spot in space 6.

Sub-sp. **aditus** Moore 1884: ♂ Andamans. Fig Lep Ind.
B.M. 11 ♂ 13 ♀ Andamans. 1 ♂ Coco Is.
(e). Upf with spots in spaces 2, 3 and a lower cell spot. Uph cilia white. Unh tornal two-thirds whitened.
Sub-sp. **scopas** Staudinger 1889: ♂ Palawan: figured.
B.M. 1 ♂ Palawan.

3 (4). Unf dorsum all dark brown. Upf unmarked. Uph with a tornal white area and the cilia white. Unh white except at costa.
everyx. 2 sub-species.
(a). Uph tornal white area narrow, 2 mm., and divided along vein 1b.
Sub-sp. **everyx** Mabille 1883: Malacca.
Synonym. *tripura* De Nicéville 1891: ♀ Perak: type B.M.
B.M. 2 ♂ Burma (Tavoy). 1 ♀ Siam (Renong). 8 ♂ 2 ♀ Malaya. 7 ♂ Sumatra. 7 ♂ 2 ♀ Borneo.
(b). Uph tornal white area wide, 3 mm., and undivided.
Sub-sp. **albescens** Mabille 1891: ♂ Java: type B.M. Fig Seitz; Rhop Java as *tripura*.
B.M. 10 ♂ 5 ♀ Java.

4 (1a). Unf tornus broadly white from mid dorsum to termen in spaces 1a and 1b. Spotted very much like *gremius*, but the wings are more produced and the genitalia very different. ♂ F 18 mm.
migreus Semper 1892: ♂ Luzon: fig pl. 49/9 ♂, nec ♀. Fig Seitz.
B.M. 1 ♂ Luzon. 2 ♂ Mindanao. 1 ♀ Philippines.

J.4. CUPITHA Moore 1884: type *purreea* Moore: fixed by author as *tympanifera* Moore, which is a synonym of *purreea*.

Single species. Above, brown: upf with a yellow streak along costa and a broad central, irregular, yellow band from base below cell towards apex: uph with a broad central yellow band. Markings broad in DSF, narrow in WSF. Below, yellow, tornus F and H brown, as well as an area under cell F. ♂ uph with a peculiar oval white brand, which exudes a waxy secretion: unf with a speculum and the dorsum produced to cover the brand. ♂ F 15. Looks as if it belongs to the *Taractrocera* group and has the peculiarity of the food-plant being a dicotyledon.

purreea Moore 1877: ♀ Andamans: type B.M.: figured. Fig Lep Ind; Rhop Java; Seitz ♂ as *verruca* and ♀ as *purreea*.

Synonyms. *tympanifera* Moore 1884: ♂ Pegu: type B.M.
verruca Mabille 1889: ♂ Nias.
lycorias Mabille 1893: ♀ Java: type B.M.
alara Fruhstorfer 1911: ♀ Celebes: type B.M.

B.M. 13 ♂ 17 ♀ S. India. 13 ♂ 5 ♀ Sikkim. 1 ♂ 1 ♀ Bhutan. 7 ♂ 6 ♀ Assam. 22 ♂ 17 ♀ Burma. 6 ♂ 11 ♀ Andamans. 9 ♂ 6 ♀ Siam. 1 ♀ Indo-China. 2 ♂ Malaya. 3 ♂ Sumatra. 4 ♂ 3 ♀ Nias. 1 ♂ 4 ♀ Java. 4 ♂ 1 ♀ Borneo. 1 ♂ 1 ♀ Palawan. 2 ♂ 2 ♀ Celebes.

J.5. ZOGRAPHETUS Watson 1893: type *satwa* De Nicéville: fixed by author.

Synonym. *Gehenna* Watson 1893: type *abima* Hewitson; fixed by author.

1a (3a). ♂ upf with or without brands, no secondary sexual characters unf. ♂ ♀ vein 4 mid veins 3 and 5: ♀ vein 2 mid base and vein 3 Hyaline spots white.

1 (2). ♂ upf vein 2 nearer to base than to vein 3: brands basal rather than central, short and well marked, not extending to base of vein 3, placed under cubitus, above and below veins 2 and 1. ♂ ♀ antennae = ½ costa, chequered, but club not whitened. ♂ ♀ upf usually with 2 sub-apical spots and a spot in space 1b: unf costa yellow to the sub-apical spots, termen beyond inwardly dark brown, outwardly paler, no ochreous colouring but strongly purple glossed: unh basal ½ yellow, with a few black spots, outer ½ dark brown purple washed. ♂ F 16 mm.

satwa De Nicéville 1884: ♂ Sikkim: figured. Fig Lep Ind; Rhop Java; Seitz.

B.M. 22 ♂ 10 ♀ Sikkim. 9 ♂ 9 ♀ Assam. 15 ♂ 1 ♀ Burma. 5 ♂ 4 ♀ Siam. 1 ♂ Malaya. 2 ♂ Java.

2 (1). ♂ upf vein 2 mid base and vein 3, as in ♀: brands, when present, central rather than basal, long, very narrow, placed under cubitus from vein 2 to vein 3, over and under basal part of vein 2 and a corresponding streak over vein 1. ♂ antennae longer than ½ costa, shaft chequered, club conspicuously whitened: ♀ as in *satwa*. Unf apical half of termen more or less ochreous. In spite of the bewildering variation in the ♂ genitalia, the presence or absence of the ♂ brands and the appearance of the unh, it is considered that there is only one real species.

ogygia. 4 sub-species.

(a). ♂ upf with brands. Unh ochreous to ferruginous, darkening outwardly, with large purple discal spots. ♂ F 14–16 mm. Lateral process at base of uncus bifid; outer arm sharply pointed, long or short; inner arm may be much enlarged.

Sub-sp. **ogygia** Hewitson 1866: ♂ Sumatra: type B.M. Fig Hew 1876; Lep Ind; Rhop Java; Seitz.

Synonyms. *flavipennis* De Nicéville 1885: ♀ Bhutan: figured. Fig Lep Ind; Seitz.

flavalum De Nicéville 1887: ♂ Sikkim: figured. Fig Lep Ind.

B.M. 1 ♂ Sikkim. 2 ♂ Assam. 22 ♂ 13 ♀ Siam. 2 ♂ Malaya. 1 ♂ 2 ♀ Sumatra. 1 ♀ Nias. 2 ♂ Banka. 2 ♂ 1 ♀ Borneo.

(b). A minor but constant local form. Unh sulphur yellow with very large purple confluent discal spots: apex unf conspicuously sulphur yellow. ♂ F 14 mm.

Sub-sp. **andamana** Evans 1926: ♂ Andamans: type B.M.

B.M. 3 ♂ 2 ♀ Andamans.

(c). ♂ upf no trace of brands. Smaller, ♂ F 14 mm., and darker. Unf apex and all unh more uniform dark red, markings small, dull and may be absent. Above purple wash often intense. Lateral process at uncus base not bifid, inconspicuous.

Sub-sp. **ogygioides** Elwes & Edwards 1897: ♂ Malaya: figured: type B.M. Fig Seitz.

B.M. 4 ♂ 1 ♀ Malaya. 2 ♂ 2 ♀ Sumatra. 4 ♂ 1 ♀ Borneo.

(c). Unh indicates a reversion to *satwa*, basal half dusky sulphur with small dark spots, outer half purple brown, but sometimes ochreous spotted. ♂ F 14–16 mm. Lateral process at base of uncus bifid, but outer arm is narrowly rectangular and is not pointed. ♂ brands faint.

Sub-sp. **durga** Plötz 1884: ♂ Philippines. Fig Semper 1892; Swinhoe 1908; Seitz.
B.M. 3 ♂ Philippines. 1 ♂ Polillo. 2 ♂ 2 ♀ Mindanao. 1 ♂ Lombok. 1 ♂ Sambawa. 1 ♂ S. Flores. 1 ♀ Alor.

3a (1a). ♂ upf without brands, but unf vein 2 from its origin and also the adjoining part of the cubitus swollen and overlaid by a black hair tuft from base dorsum. ♂ F vein 3 shifted basad, so that vein 4 rises much nearer to vein 5 than to vein 2: ♀ vein 4 mid 3 and 5: ♂ ♀ F vein 2 much nearer to base than to vein 3. ♂ antennae longer than ½ costa, shaft weakly chequered, club whitened on inside. Hyaline spots pale yellow.

3 (4). Small, ♂ F 16 mm. ♂ unf glandular swelling of cubitus short, extending only one-third of the distance to vein 3. ♂ upf spot in space 2 narrow, higher than wide. Unh overlaid greenish to dull ochreous scales, leaving dark spots on disc, arranged as in *ogygia*. Cilia H brown.

rama Mabille 1876: ♂ "Himalaya": type B.M. Probably from Burma.
Synonyms. *graeae* De Nicéville 1895: ♂ N.E. Sumatra: figured.
angulifera Elwes & Edwards 1897: ♂ Mindoro: figured.
dawna Evans 1926: ♂ Dawnas, Burma: figured: type B.M.
B.M. 1 ♂ type *rama*. 4 ♂ Burma. 1 ♂ Malaya. 1 ♂ Celebes.

4 (3). Large ♂ F 18 mm. ♂ unf glandular swelling of cubitus long, reaching more than half-way to vein 3. ♂ upf spot in space 2 broad, quadrate or broader than high. Unh overlaid bright ochreous scales with the dark spots well marked. Cilia H grey or pale yellow.

abima Hewitson 1877: ♂ Macassar: type B.M.
Synonyms. *sewa* Plötz 1885: ♂ Celebes. Fig Seitz.
palawanica Strand 1921: Palawan.
B.M. 14 ♂ 4 ♀ Celebes.

J.6. OERANE Elwes & Edwards 1897: type *microthyrus* Mabille: fixed by Lindsey 1923 as *neaera* De Nicéville, which is a sub-species of *microthyrus*.

Single species. There is a remarkable range of individual variation in respect of size, ♂ F 11 to 16 mm. and in the width of the white central band upf, from 1 to 3 mm. Antennal club conspicuously whitened, shaft plain.

microthyrus. 2 sub-species.

(a). Unf outer half of dorsum below vein 2 pale brown. Upf spot in space 3 is not infrequently absent.

Sub-sp. **neaera** De Nicéville 1891: ♀ Perak: type B.M.: figured. Fig Lep Ind.

Synonyms. *pusilla* Fruhstorfer 1911: ♂ Java: type B.M. *drymo* Mabille 1913: ♂ Sumatra: type B.M.

The figures of *neaera* in Rhop Java and *pusilla* in Seitz are of *Quedara monteithi dissimilis*.

B.M. 19 ♂ 10 ♀ Burma (Karens to Mergui). 3 ♂ 4 ♀ Malaya. 4 ♂ Sumatra. 3 ♂ Banka. 1 ♂ Java. 10 ♂ 6 ♀ Borneo.

(b). Unf outer half of space 1b pure white. Upf spot in space 3 absent or vestigial. Larger.

Sub-sp. **microthyrus** Mabille 1883: ♂ Philippines: type B.M. Fig Seitz.

Synonym. *mindorana* (Staudinger MS) Semper 1892 = *microthyrus*.

B.M. 1 ♂ Philippines. 1 ♂ Mindanao. 4 ♂ 1 ♀ Mindoro. 1 ♂ Luzon.

J.7. HYAROTIS Moore 1881: type *adrastus* Stoll: fixed by author.

Synonym. *Itys* De Nicéville 1895: type *iadera* De Nicéville: fixed by author: homonym by Wagler 1831 and replaced by *Kineta* Lindsey 1925: type as for *Itys*.

1 (2a). ♂ unf no tuft on dorsum. Upf hyaline white spots conspicuous and a spot in space 1b usually present. Antennal club white ringed before apiculus. ♂ F 16–18 mm.

adrastus. 3 sub-species.

(a). Upf spot in space 2 more or less central between the cell spot and the spot in space 3.

Sub-sp. **adrastus** Stoll 1782: "Surinam" (recte Ceylon): figured. Fig Lep Ceylon; Lep Ind, pl. 796/3 and 3b; Seitz, pl. 169.

B.M. 16 ♂ 8 ♀ Ceylon.

(b). Upf spot in space 2 immediately below and adjoining the cell spot. There is a great deal of individual as well as seasonal variation. Unh the central white band sharply defined in WSF: tending to become obsolete in the DSF.

Sub-sp. **praba** Moore 1865: ♀ Bengal: type B.M. Fig Distant; Lep Ind, pl. 796/3a; Seitz, vol. I; all as *adrastus*.

Synonyms. *phaenicis* Hew 1871: ♂ India: figured.
meluchus Fruhstorfer 1911: ♂ Java: type B.M.
palawensis Fruhstorfer 1911: Palawan.
mindanaensis Fruhstorfer 1911: ♂ Mindanao.

B.M. 16 ♂ 16 ♀ S. India. 4 ♂ N.W. Himalayas (Kangra to Nepal). 1 ♀ Bengal. 23 ♂ 10 ♀ Sikkim. 11 ♂ 3 ♀ Assam. 13 ♂ 11 ♀ Burma. 11 ♂ 10 ♀ Andamans. 5 ♂ 4 ♀ Hong Kong. 2 ♂ 1 ♀ Hainan. 10 ♂ Siam. 1 ♂ 2 ♀ Malaya. 2 ♂ 1 ♀ Sumatra. 12 ♂ 2 ♀ Java. 11 ♂ 3 ♀ Borneo. 2 ♂ 1 ♀ Palawan. 1 ♂ Philippines.

(c). Spots much reduced upf, apical spots and spot in space 3 absent.

Sub-sp. **armax** Evans 1942: ♂ Sipora Is.: type B.M.

B.M. Only the type.

2a (1). Unf with a long tuft of obliquely set hairs mid dorsum.

2 (3). Upf with more or less developed white spots, very variable. Antennal club white ringed before apiculus. Unf tornal area whitish. Unh with a more or less conspicuous central circular ferruginous area and occasionally small white discal spots are present.

microstictum. 2 sub-species.

(a). ♂ H origin vein 7 placed as in ♀, much nearer end cell than to base. Typically with conspicuous white spots upf and none unh. ♂ F 18 mm. Clasp broader at end and without an angled projection from middle of cuiller.

Sub-sp. **coorga** nov: ♂ Sati River, Coorg: 2nd Dec. 1927: J. A. Yates: type B.M.

B.M. 2 ♂ 2 ♀ Coorg.

(b). ♂ H origin vein 7 mid end cell and base. ♂ 16–17 mm. Typically with rather large spots upf: more frequently linear (*binghami*): rarely obscure or absent (*biseriata*).

Sub-sp. **microstictum** Wood-Mason & De Nicéville 1887: ♂ Cachar: figured. Fig Lep Ind: Seitz fig is *Iambrix salsala*.

Synonyms. *biseriata* Elwes & Edwards 1897: ♂ Luzon. *binghami* Swinhoe 1907: ♂ Salween Valley, Burma: type B.M. Fig Lep Ind. Fig in Seitz of *biseriata* is *Quedara monteithi noctis*.

B.M. 4 ♂ Assam. 9 ♂ 3 ♀ Burma. 1 ♂ Peninsular Siam. 1 ♂ Malaya. 2 ♂ Sumatra. 2 ♂ Borneo.

3 (2). Above and below unmarked. Often with a purple sheen above. Unf dorsum pale or dark. ♂ F 14 mm.

iadera De Nicéville 1895: ♂ Penang: figured. Fig Rhop Java; Seitz.

Synonym. *ciliata* Elwes & Edwards 1897: ♂ Pulo Laut: type B.M.: figured. Fig Seitz.

B.M. 1 ♀ Malaya. 3 ♂ Sumatra. 1 ♂ 1 ♀ Siberut Is. 3 ♂ 2 ♀ Borneo. 1 ♂ Banka.

J.8. QUEDARA Swinhoe 1907: type *monteithi* Wood-Mason & De Nicéville: fixed by author as *comoploea* Swinhoe, which is a synonym of *monteithi*.

1a (4a). Sexes alike, with a broad hyaline white central band upf, otherwise unmarked. Unf band not continued above the radius.

1 (2a). Unh base broadly yellow. Upf and unf no white spot in space 1b: may be a hyaline detached dot in space 3. Antennae plain. Palpi grizzled. ♂ F 21 mm.

basiflava De Nicéville 1888: ♂ Travancore: figured. Fig Lep Ind.

B.M. 5 ♂ 5 ♀ Nilgiris. 13 ♂ 4 ♀ Coorg. 1 ♂ 1 ♀ Travancore.

2a (1). Unh plain dark brown.

2 (3). Antennal club whitened conspicuously, shaft plain. Palpi grizzled. Upf a dot, 2 dots or a white streak in space 1b and a small detached hyaline dot in space 3. Unf broad white tornal area in space 1b. ♂ F 22 mm.

inornata Elwes & Edwards 1897: ♂ Kina Balu: figured. Fig in Seitz as "*montheiti*".
B.M. 5 ♂ 1 ♀ Kina Balu, Borneo.

3 (2). Antennal club brown and palpi brown. Upf, an upper spot in space 1b and no spot in space 3. Unf tornus broadly white in space 1b. ♂ F 20 mm.

albifascia Moore 1878: ♂ Hatsiega, Tenasserim: type B.M.: figured. Fig Lep Ind, pl. 804/1: figs 1a and 1b are of *Notocrypta pria.*
B.M. 3 ♂ 5 ♀ Burma, Ataran.

4a (1a). Sexes dissimilar: ♂ unmarked. ♀ with broad hyaline white band, usually with a conjoined spot in spaces 3 and 1b: unf the white band continued over the radius to the costa. Antennal club and palpi brown.

4 (5). Clasp serrations more pronounced and inner face sharply angled outwards in the middle. ♂ unf a pale brown oval area near tornus in space 1b. ♀ white band very broad and the costal white area continued well beyond the cell spot towards the apex. Large, ♂ F 19 mm.

singularis Mabille 1893: ♀ Java: type B.M.
Synonym. *perfusca* Mabille 1893: ♂ Java: type B.M.
B.M. 3 ♂ 3 ♀ Java.

5 (4). Clasp serration much finer and inner face evenly bowed. ♀ unf costal white area not extending beyond the cell spot.

monteithi. 3 sub-species.

(a). ♂ unf tornal area not pale. ♀ upf with spots in spaces 3 and 1b. ♂ F 17 mm.

Sub-sp. **monteithi** Wood-Mason & De Nicéville 1887: ♀ Cachar: figured. Fig Lep Ind, pl. 804/2, 2a, 2b, all ♀.
Synonym. *comoploea* Swinhoe 1919: ♂ Kina Balu: type B.M.
B.M. 14 ♂ 1 ♀ Burma (Ataran–Mergui). 1 ♂ Peninsular Siam. 6 ♂ 1 ♀ Malaya. 1 ♀ Batoe. 3 ♂ Banka. 3 ♂ 3 ♀ Sumatra. 6 ♂ 1 ♀ Borneo.

(b). Similar, but ♀ upf no spot in space 1b and spot in space 3 may be absent.

Sub-sp. **dissimilis** Elwes & Edwards 1897: ♀ Java: type B.M. Fig Rhop Java, pl. 10/78a and b, ♂ and ♀ as *neaera* and reproduced in Seitz, pl. 175a as *pusilla*.
B.M. 1 ♂ 1 ♀ Java: specimens sent by Snellen to Elwes. 3 ♀ Nias.
(c). ♂ unf with a more or less conspicuous tornal area in space 1b. Larger, ♂ 18 mm.

Sub-sp. **noctis** Staudinger 1889: ♂ Palawan. Fig Seitz as *biseriata*.
Synonym. *aliena* Staudinger 1889: ♀ Palawan.
B.M. 3 ♂ 2 ♀ Palawan. 4 ♂ Mindanao.

J.9. ISMA Distant 1886: type *obscura* Distant: fixed by author.

Synonyms. *Lophoides* Watson 1893: type *protoclea* Herrich-Schäffer: fixed by author as *iapis* De Nicéville, a sub-species of *protoclea*.

Sepa De Nicéville 1894: type *cronus* De Nicéville: fixed by author.

1a (3a). ♂ unf with a black upturned hair tuft from before mid dorsum and uph with a thin brown tuft from base of vein 8: in addition there is a brown oval brand over basal third of vein 1 upf and the cilia at tornus H are conspicuously elongate. ♀ unf outer half of dorsum white.
1 (2). Unh comparatively pale brown, overlaid with greenish yellow scales, no purple wash. ♀ upf always with a spot in space 1b and the spot in space 2 usually just overlaps the spot in space 3. ♂ F 15 mm. Tip of valva acutely pointed, ending under the prolonged tip of the cuiller, the serrate lower edge of which is inclined at the same angle as the upper edge of the cuiller.

protoclea. 2 sub-species.
(a). Upf ♂, spots in spaces 2 and 3 approximate, but not overlapping.

Sub-sp. **iapis** De Nicéville 1890: ♂ Johore: figured. Fig Lep Ind as *protoclea* and genitalia fig by Elwes & Edwards.
B.M. 11 ♂ 1 ♀ Burma (Ataran–Mergui). 2 ♂ Siam. 10 ♂ 2 ♀ Malaya. 16 ♂ 4 ♀ Sumatra. 6 ♂ 1 ♀ Batoe Is. 1 ♂ Siberut. 21 ♂ 6 ♀ Borneo.

(b). Upf spots enlarged, ♂ those in spaces 2 and 3 contiguous.

Sub-sp. **protoclea** Herrich-Schäffer 1869: no loc. (♀ Java). Fig Rhop Java as *iapis*. Lep Ind fig is *iapis*: Seitz fig is *vulsina*.

Synonym. *vulso* Mabille 1893: ♂ Java: type B.M. Fig Seitz.

B.M. 16 ♂ 4 ♀ Java.

2 (1). Unh darker basis and with a more or less developed purple gloss. Tip of valva rounded.

obscura. 5 sub-species.

(a). Below conspicuously distinct. Unf termen broadly paler. Unh costa dark brown, dorsum pale brown, in between densely overlaid with grey scaling with a strong violet flush, leaving a row of small dark discal spots. ♂ ♀ upf spotting and form of cuiller as in *iapis*. ♂ F 17 mm.

Sub-sp. ***bicolor** Evans 1926: ♂ Dawnas, Burma: type B.M.: figured.

B.M. 14 ♂ 5 ♀ Karens. 13 ♂ 2 ♀ Ataran. 3 ♂ Tavoy. 1 ♂ Siam.

(b). In the remaining sub-species the serrate lower edge of the cuiller is much less inclined than the upper edge: unh much more uniform: upf in ♂ spots in spaces 2 and 3 remote: and ♀ without spot in space 1b. In Malaya the spots upf are much reduced in the ♂: only a single sub-apical dot and the cell spots typically absent or minute. Unh dark brown, dark spots may be absent and the purple flush may be very faint. ♂ F 16 mm.

Sub-sp. **obscura** Distant 1886: ♂ Singapore: type B.M.: figured. ♀ fig in Seitz is of an unusually large specimen, perhaps from Sumatra.

B.M. 2 ♂ 3 ♀ Malaya.

(c). A larger edition of *obscura* ♂ F 18 mm.: upf spots larger and generally with 2 sub-apical dots: uph cilia yellow. Unh with dull dark ochreous scaling, purple flush variable, the dark discal spot in space 2 may be pale centred.

Sub-sp. **fonta** nov: ♂ Sumatra: type B.M.

B.M. 9 ♂ 2 ♀ Sumatra.

(d). Smaller, ♂ F 16 mm., and paler, above and below. Unh purple gloss conspicuous.

Sub-sp. **purpurascens** Elwes & Edwards 1897: ♂ Pulo Laut: type B.M.: figured ♂ ♀ and genitalia. Fig Seitz.
B.M. 6 ♂ 4 ♀ Borneo.

(e). Large, ♂ F 19 mm., and dark. Unf apex broadly, and entire unh purple glazed, not just glossed, dark spotting absent. Upf spots larger than in the other Malayan forms.

Sub-sp. **vulsina** nov: ♂ Java, Mt. Gedé: type B.M. Well figured in Seitz as *protoclea*.
B.M. 2 ♂ 1 ♀ Java.

3a (1a). ♂ unf and uph without hair tufts: ♀ unf dorsum not broadly white.

3b (6a). ♂ H tornal cilia more or less elongate and upf with a linear discal stigma from mid vein 1 to origin vein 3. ♀ upf without cell spots (sometimes an upper dot in *cronus*).

3 (4a). Unf dorsum broadly pale brown, unmarked. Upf markings dull dark yellow, spot in space 2 long and narrow, no spot in space 1b. Uph plain: unh with a dull yellow dot in the cell and 1 to 3 on the disc. ♂ F 19 mm.

cronus De Nicéville 1894: ♂ Sumatra: figured. Fig Seitz; Evans 1939.
B.M. 1 ♂ 3 ♀ Malaya. 1 ♂ Sumatra. 3 ♂ 2 ♀ Borneo.

4a (3). Unf dorsum not paler, but with a pale spot in space 1b. Unh rarely a dot in cell, much smaller than the discal spots.

4 (5). Upf no cell spots and spot in space 1b much smaller than the spot in space 3. Uph with or without 2 small discal spots. Unh 2 or 3 small dull yellow discal dots. ♂ F 18 mm.

binotatus Elwes & Edwards 1897: ♂ Kina Balu: figured. Fig Seitz; Evans 1939.
Synonym. *cicatrosa* Elwes & Edwards 1897: ♂ Kina Balu: figured. Fig Seitz.
B.M. 3 ♂ 1 ♀ Borneo.

5 (4). Upf ♂ with 2 elongate cell spots: ♀ without. Spot in space 1b upf larger than the spot in space 3, reaching right across the space in the ♂. Uph with 3 conspicuous and contiguous hyaline spots.

feralia. 3 sub-species.

(a). Uph inner edge of line of the 3 discal spots irregular. ♂ F 18 mm.

Sub-sp. **lenya** Evans 1932: ♂ S. Mergui: type B.M. Fig Evans 1939.

B.M. 1 ♂ S. Mergui. 1 ♀ Peninsular Siam. 1 ♂ Malaya. 3 ♂ 2 ♀ Sumatra.

(b). Similar, but uph inner edges of spots in a straight line.

Sub-sp. **feralia** Hewitson 1868: ♂ Java: type B.M. Fig Hewitson 1871. Figures in Rhop Java and Seitz are of *umbrosa ferox.*

Synonym. *javana* Evans 1932: ♂ Java: type B.M.

B.M. 4 ♂ 1 ♀ Java.

(c). Smaller, ♂ F 17 mm. ♂ uph markings much broader, reaching half-way to termen and often a small cell spot.

Sub-sp. **fenestrata** Elwes & Edwards 1897: ♂ Pulo Laut: type B.M.: figured. Fig Seitz.

Synonym. *concinna* Elwes & Edwards 1897: ♀ Pulo Laut: type B.M.: figured. Fig Seitz.

B.M. 7 ♂ 2 ♀ Borneo.

6a (3b). ♂ H tornal cilia not elongate and upf with a brown oval brand over basal third of vein 1 (absent in Palawan *bononia*).

6b (10a). Upf spot in space 2 not extending to the inner edge of the cell spots. ♂ F 17 to 20 mm.

6c (8a). ♂ uph markings insignificant or absent: upf with a linear discal stigma. ♂ F 17 mm.

6 (7). Upf spots white and large: spot in space 3 overlapped by the spot in space 2: cell spots in ♀ conjoined to a single large spot.

***dawna** Evans 1926: ♂ Dawnas: type B.M. Fig Evans 1939.

B.M. 5 ♂ 7 ♀ S. Burma (Ataran–Mergui).

7 (6). Upf spots small and yellow: spots in spaces 2 and 3 not overlapping. Unf spot in space 1b diffused widely.

miosticta De Nicéville 1891: ♂ Perak: type B.M.: figured. Fig Seitz; Evans 1939.
Synonym. *indistincta* Druce 1912: ♂ Borneo: type B.M.
B.M. 1 ♂ 2 ♀ S. Burma (Ataran–Mergui). 1 ♂ Peninsular Siam. 5 ♂ 2 ♀ Malaya. 1 ♂ Banka. 1 ♂ Sipora. 1 ♀ Siberut. 2 ♂ Borneo.

8a (6c). ♂ uph with 3 conspicuous, contiguous hyaline discal spots: in ♀ the spots reduced or absent. ♂ F 18–20 mm.

8 (9). ♂ upf with a linear stigma extending only from the origin of vein 3 to vein 2: lower cell spot produced basad.

umbrosa. 2 sub-species.

(a). ♀ typically with only an upper cell spot upf and well-marked spot in space 1b: cilia H bright yellow. ♀ shows a great deal of variation: in Borneo and Sumatra there may be considerable tornal yellow suffusion uph and in Borneo the cell spot and the spot in space 1b may be absent.

Sub-sp. **umbrosa** Elwes & Edwards 1897: ♀ Kina Balu: type B.M.: figured. Fig Seitz; Evans 1939.
Synonym. *cinnamomea* Elwes & Edwards 1897: ♀ (nec ♂): Kina Balu: figured. Fig Seitz; Evans 1939.
B.M. 2 ♂ Malaya. 3 ♀ Sumatra. 1 ♀ Sipora Is. 12 ♂ 6 ♀ Borneo.

(b). ♀ upf with 2 cell spots, lower spot produced basad, as in ♂.

Sub-sp. **ferox** Evans 1932: ♂ Java: type B.M. Fig as *feralia* in Rhop Java and Seitz.
B.M. 5 ♂ 1 ♀ Java.

9 (8). ♂ upf with (*damocles*) a linear discal stigma reaching to vein 1 or without any stigma (*kuala*): lower cell spot produced towards the apex and not basad. ♀ with 2 sub-equal cell spots with their outer edges in line: uph may have 2 discal spots, but more usually unmarked.

guttulifera Elwes & Edwards 1897: ♀ (nec ♂) Kina Balu: figured. Fig Seitz: Evans 1939.
Synonym. *kuala* Evans 1932: ♂ Pahang: type B.M. Fig Evans 1939.

damocles Evans 1939: ♂ Johore: type B.M.: figured.
B.M. 1 ♀ Indo-China. 5 ♂ 5 ♀ Malaya. 1 ♂ 1 ♀ Sumatra. 1 ♂ Banka. 2 ♀ No loc. 2 ♂ 3 ♀ Borneo.

10a (6b). Upf spot in space 2 extending to the inner edge of the cell spots: no discal stigma. ♂ F 15 mm. or less.
10 (11). Unh with ferruginous scaling. Hyaline spots yellow. Uph plain in ♀: 2 or 3 discal spots in ♂. Aedeagus with a spine.
bononoides Druce 1912: ♀ Borneo: type B.M. Fig Evans 1939.
Synonym. *matanga* Druce 1912: ♂ Borneo: type B.M.
B.M. 1 ♂ Sumatra. 1 ♂ Banka. 2 ♂ 4 ♀ Borneo. (Malaya, coll Cowan.)

11 (10). Unh with olive scaling. Hyaline spots white or very pale yellow. Aedeagus plain.
bononia. 3 sub-species.
(a). ♂ uph with 2 small, well-separated spots: ♀ with none.
Sub-sp. **idyalis** De Nicéville 1897: ♂ Toungoo: figured.
B.M. 3 ♂ 1 ♀ S. Burma (Karens to Tavoy).
(b). ♂ uph with 3 large conjoined discal spots and often a spot in the cell: ♀ with 2 small spots.
Sub-sp. **bononia** Hewitson 1868: ♀ Singapore: type B.M. Fig Hewitson 1871; Distant 1886; Seitz; Evans 1939.
Synonyms. *inarime* De Nicéville 1891: ♂ Perak: type B.M.: figured. Fig Seitz: genitalia fig Elwes & Edwards 1897.
zetus Mabille 1893: ♂ Java: type B.M.
B.M. 1 ♂ 2 ♀ S. Burma (Mergui). 1 ♀ Siam. 3 ♂ 7 ♀ Sumatra. 6 ♂ 3 ♀ Java. 4 ♂ 4 ♀ Borneo.
(c). As *bononia*, but lacks the brand over the basal part of vein 1 upf in the ♂.
Sub-sp. **bipunctata** Elwes & Edwards 1897: ♀ Palawan: figured. Fig Seitz.
B.M. 2 ♂ 1 ♀ Palawan.

J.10. PLASTINGIA Butler 1870: type *flavescens* Felder: fixed by author.

1a (22a). Unh with conspicuous markings.
1b (11a). Upf with a hyaline spot in space 4.

1c (6a). Upf apical spots in spaces 6 and 7 directed to dorsum.

1 (2a). Unh tornal area entirely yellow. ♂ F 21 mm.

vermiculata Hewitson 1878: ♀ Sumatra: type B.M. Fig De Nicéville 1894; Seitz.

B.M. 3 ♀ Sumatra.

2a (1). Unh tornus dark brown.

2b (4a). Unh dorsal yellow streaks long, in space 1c reaching termen and in space 1b two-thirds of the way thereto.

2 (3). Antennal club only yellow at tip before apiculus. Smaller, ♂ F 16 mm., rounder wings and yellower. Upf lower cell spot over inner edge of spot in space 2: in ♂ extreme base of wing yellow: in ♀ yellow areas in spaces 1b and 2 separate. End of clasp irregularly rounded.

helena. 2 sub-species.

(a). ♂ upf upper cell spot widely detached from basal yellow area.

Sub-sp. **natuna** Fruhstorfer 1909: ♂ Natuna Is.: type B.M.

B.M. 1 ♂ S. Burma (Lenya Valley, Mergui). 1 ♂ Langkawi Is. 1 ♂ 1 ♀ Malaya. 4 ♂ Batoe Is. 1 ♂ Natuna Is.

(b). ♂ above yellow area very extensive, upf reaching upper cell spot and uph the upper edge of the cell.

Sub-sp. **helena** Butler 1870: ♂ Borneo: type B.M. Fig Butler 1874; Seitz.

B.M. 5 ♂ 2 ♀ Sumatra. 1 ♂ Banka. 14 ♂ 3 ♀ Borneo.

3 (2). Antennal club entirely yellow. Larger, ♂ F 17 mm., more elongate wings and redder. Upf lower cell spot over the middle of the spot in space 2: in ♂ cell equally broadly brown to base. End of clasp hooked and even.

flavia. 2 sub-species.

(a). Yellow area above, broad, particularly costal streak upf and in ♀ upf the yellow areas in spaces 1b and 2 are conjoined.

Sub-sp. **fruhstorferi** Mabille 1893: ♂ Java: type B.M. Fig Elwes & Edwards 1897; Seitz.

B.M. 1 ♂ 1 ♀ Malaya. 1 ♂ Sumatra. 19 ♂ 21 ♀ Java. 1 ♂ Borneo.

(b). Yellow areas narrower: upf costal streak short and slender in ♂, vestigial in ♀, where also the yellow area in space 1b is separate.

Sub-sp. **flavia** Staudinger 1889: ♂ Palawan. Fig Seitz.
B.M. 1 ♂ 2 ♀ Palawan.

4a (2b). Unh dorsal yellow streaks in spaces 1b and 1c short, not reaching beyond mid wing. ♂ F 17–19 mm.
4 (5). Unh with yellow veins and more or less well-developed pale blue spots: unf basal half of space 5 pale blue. Antennae in ♂, club and shaft yellow: in ♀, club yellow.

latoia. 2 sub-species.
(a). Unh much darker, central band narrow and veins faintly yellow.

Sub-sp. **bardia** Evans 1941: ♂ Dawnas: type B.M.
B.M. 13 ♂ 8 ♀ Burma, Dawnas.
(b). Unh band broader, veins conspicuously yellow.

Sub-sp. **latoia** Hewitson 1868: ♀ Singapore: type B.M. Fig Hewitson 1873; Seitz; Distant 1886 as *callineura*; Lep Ind, pl. 806, fig 1a, but figs 1 and 1b are *aurantiaca* ♀.
B.M. 4 ♂ 2 ♀ S. Burma (Mergui). 1 ♀ Peninsular Siam. 1 ♂ 4 ♀ Malaya. 7 ♂ 4 ♀ Sumatra. 1 ♂ Lingga Archip. 1 ♀ Batoe Is. 1 ♂ Java. 7 ♂ 7 ♀ Borneo.

5 (4). Unh without yellow veins or blue spots. Antennae above plain brown, whitish under club.

liburnia. 2 sub-species.
(a). Above markings comparatively smaller. Upf spots in spaces 2 and 3 wide apart and no spot in space 5. Uph band narrower than its distance from the termen.

Sub-sp. **liburnia** Hewitson 1868: ♀ Philippines: type B.M. Fig Hewitson 1873; Seitz.
B.M. 1 ♂ Polillo. 2 ♂ Los Banos. 10 ♂ 8 ♀ Luzon. 6 ♂ 5 ♀ Mindoro.
(b). Markings broader and brighter yellow. Upf spots in spaces 2 and 3 contiguous and always a spot in space 5. Uph band broader than its distance from the termen.

Sub-sp. **minda** Evans 1941: ♂ Mindanao: type B.M.
B.M. 10 ♂ 2 ♀ Mindanao. 1 ♂ 1 ♀ Negros Is.

6a (1c). Upf apical spots in spaces 6 and 7 directed to termen.

6b (8a). Unh vein 8 narrowly edged with yellow along its lower edge, no yellow on the costal side of the vein; resembling *latoia* in respect of this feature.

6 (7). Unf basal half of space 5 pale blue, as in *latoia*, but the scaling extends into space 4. Upf spots in spaces 3 and 4 contiguous, but not overlapping. Unh as dark as *latoia bardia*, but pale blue markings absent; central band and streak base costa very broad, yellowish white. ♂ F 20 mm. Uncus without the usual side horns. Antennal club white.

klanga Evans 1941: ♂ Perak: type B.M.
2 ♂ Malaya.

7 (6). Unf no blue scaling in space 5. ♂ antennal club and shaft white, ♀ club only. Resembles *latoia* very closely. ♂ F 17–18 mm.

derna Evans 1941: ♂ Sumatra: type B.M.
B.M. 1 ♀ Tavoy. 1 ♀ Malaya. 1 ♂ Lingga Archip. 1 ♂ Siberut Is. 6 ♂ Sumatra. 5 ♂ 2 ♀ Borneo. 3 ♂ 2 ♀ Palawan.

8a (6b). Unh vein 8 ochreous or red edged throughout on both sides.

8b (10). Upf ochreous streak along costa from base short as usual, not reaching to upper cell spot: central band dislocated as usual between the spots in spaces 2 and 3. Unf no blue scaling, but conspicuous unh.

8 (9). Upf cell spots widely separated and staggered as usual: spot in space 4 usually completely overlaps the spot in space 3: hyaline markings scarcely paler than the non-hyaline.

callineura. 3 sub-species.

(a). ♂ antennal shaft and club yellow or white, ♀ club only. Uph discal spots partially opaque. ♂ F 18–22 mm. Very variable.

Sub-sp. **niasana** Fruhstorfer 1909: ♂ Nias: type B.M.
Synonym. *burmana* Evans 1926: ♂ Dawnas, Burma: type B.M.

perakana Evans 1926: ♂ Malaya: type B.M.
B.M. 1 ♂ 1 ♀ Assam. 1 ♂ 2 ♀ Karens. 20 ♂ 13 ♀ Dawnas. 1 ♂ Siam. 7 ♂ Malaya. 5 ♂ 2 ♀ Sumatra. 3 ♂ 2 ♀ Nias. 2 ♂ 1 ♀ Palawan.

(b). ♂ ♀ antennal club only white. Uph spots large, entirely hyaline. A much more constant form: unh veins always red, while in the other 2 sub-species they are often yellow. ♂ F 21 mm.

Sub-sp. **callineura** Felder 1867: ♀ Java: figured: type B.M. Fig Lep Ind; Rhop Java; Seitz. Genitalia fig Elwes & Edwards. Fig by Distant 1886 is of *latoia* ♀.
B.M. 26 ♂ 19 ♀ Java.

(c). ♂ antennae as in *callineura*: otherwise as *niasana*.

Sub-sp. **rubida** Evans 1941: ♂ Kina Balu: type B.M.
B.M. 3 ♂ 4 ♀ Borneo.

9 (8). Upf cell spots approximate, usually conjoined: spot in space 4 separate: hyaline markings nearly white. Antennal club white in ♀, variable in ♂. ♂ F 17 mm.

margherita. 3 sub-species.

(a). ♂ antennal shaft and club white. Cuiller of clasp with dorsal end rounded.

Sub-sp. **margherita** Doherty 1889: ♂ Upper Assam: type B.M.: figured. Fig Lep Ind. Genitalia fig Elwes & Edwards 1897.
B.M. 3 ♂ 1 ♀ Assam (Manipur, Nagas, Cachar).

(b). ♂ antennal club only white. Cuiller produced at back.

Sub-sp. **miriam** Evans 1941: ♂ Dawnas: type B.M.
B.M. 1 ♂ 2 ♀ Dawnas, Burma. 2 ♀ Siam.

(c). Antennae as *margherita*: genitalia as *miriam*. Uph central band broader and all hyaline.

Sub-sp. **manda** Evans 1941: ♂ Hainan: type B.M.
B.M. 3 ♂ Hainan.

10 (8b). Upf ochreous streak from base along costa long, reaching beyond the upper cell spot: central band continuous. Unh streaks in spaces 1b and 1c as in *helena*. Ochreous areas very broad and red: pale blue spots present on unh in ♀, absent in ♂.

aurantiaca. 3 sub-species.

(a). ♂ F 18 mm., elongate: cell upf dark to base. ♀ upf lower cell spot absent, upper cell spot a dot. Antennae above, all brown in ♀: club brown and shaft ochreous in ♂.

Sub-sp. **montivaga** Pendlebury 1939: ♂ Malaya.

B.M. 1 ♀ Malaya. 3 ♂ Sumatra.

(b). ♂ F 15 mm., rounded. Yellow areas broader.

Sub-sp. **aurantiaca** Elwes & Edwards 1897: ♂ Pulo Laut: type B.M.: figured. Fig Seitz; Lep Ind, pl. 806/1, 1b as *latoia*.

B.M. 1 ♂ 1 ♀ Lingga Archip. 3 ♀ Batoe Is. 11 ♂ 7 ♀ Borneo (Pulo Laut, Sarawak).

(c). ♀ F 21 mm. Conspicuously larger and redder: antennal club outer half ochreous. Very like *callineura rubida*.

Sub-sp. **aura** Evans 1941: ♀ Kina Balu, Borneo: type B.M.

B.M. 2 ♀ Kina Balu, Borneo.

11a (1b). Upf no hyaline spot in space 4. No blue spots below, nor yellow veins. F vein 2 rising further from base.

11b (16a). F cell spots staggered, as in previous species, except *margherita*: upper cell spot centred against origin of vein 9.

11c (15). Uph discal ochreous area broken up by dark veins. Unh all veins dark.

11d (14). Aedeagus with a stout projecting spine on either side.

11 (12a). Unh markings white. ♂ F 18 mm.

naga De Nicéville 1883: ♀ Assam: figured. Fig Lep Ind. Fig in Seitz is of a ♀ *pellonia*.

Synonyms. *palawata* Staudinger 1889: ♂ Palawan. *valenia* Fruhstorfer 1909: ♂ Java: type B.M. ♂ fig Rhop Java as *tessellata* and reproduced in Seitz as *valencia*.

B.M. 11 ♂ 5 ♀ Assam. 19 ♂ 13 ♀ Burma. 3 ♂ 1 ♀ Siam. 8 ♂ 2 ♀ Malaya. 4 ♂ Sumatra. 1 ♂ Nias. 1 ♀ Banka. 7 ♂ 5 ♀ Java. 10 ♂ 5 ♀ Borneo. 3 ♂ Palawan.

12a (11). Unh markings yellow.

12 (13). Above with conspicuous ochreous markings. ♂ F 18 mm.

pellonia Fruhstorfer 1911: ♂ Java: type B.M. Fig Rhop Java, pl. X, figs 73a and 73 bis (nec 73b, which is *naga*), as *tessellata*, reproduced in Seitz as "*naga* ♂".
B.M. 1 ♂ Burma, Ataran. 1 ♂ Malaya. 2 ♂ Sumatra. 2 ♂ Banka. 2 ♂ 1 ♀ Java. 8 ♂ Borneo.

13 (12). Above with a purple glaze, ochreous markings obscure or absent. ♂ F 16 mm.

mangola nov: ♂ Sula Mangoli: type B.M.
B.M. 1 ♂ 1 ♀ Celebes. 3 ♂ 3 ♀ Sula Besi. 7 ♂ 1 ♀ Sula Mangoli.

14 (11d). Aedeagus with a single projecting spine. Markings below as in *naga*.

tessellata. 2 sub-species.

(a). ♂ F 17–20 mm.: no purple glaze. Unh markings white or pale yellow: in extreme forms yellow with small black spots, resembling *flavescens*. Clasps asymmetric.

Sub-sp. **tessellata** Hewitson 1866: ♂ Macassar: type B.M. Fig Seitz.
Synonyms. *eulepis* Felder 1867: ♂ Celebes: figured: type B.M.
mangolina Fruhstorfer 1911: ♂ Sula Besi: type B.M.
B.M. 31 ♂ 22 ♀ Celebes. 1 ♂ 2 ♀ Sula Mangoli. 5 ♂ 3 ♀ Sula Besi.

(b). ♂ F 17 mm. Upf with a purple glaze. Unh with yellow markings as in *pellonia*. Clasps symmetrical.

Sub-sp. **tessa** nov: ♂ Sangir: Jan.–Mar. 1892: W. Doherty: type B.M.
B.M. 1 ♂ Sangir.

15 (11c). Uph discal ochreous area not divided by dark veins. Unh yellow with more or less developed dark spots, veins not darkened, except sometimes faintly in ♀. ♂ F 18 mm.

flavescens Felder 1867: ♂ Celebes: figured: type B.M. Fig Seitz.
Synonyms. *atala* Fruhstorfer 1909: ♂ S. Celebes: type B.M.
samanga Fruhstorfer 1909: ♂ S. Celebes: type B.M.
B.M. 29 ♂ 21 ♀ Celebes.

16a (11b). F cell spots one above the other: upper cell spot centred well before the origin of vein 9.
16b (20a). Uph with a conspicuous yellow discal area. Unh yellow.
16 (17a). Unh veins black. ♂ F 18 mm.
viburnia Semper 1892: ♂ Mindoro. Fig Seitz.
B.M. 1 ♂ Palawan. 1 ♂ Mindanao. 6 ♂ 4 ♀ Mindoro.

17a (16). Unh veins not black: with black spots.
17b (19). Upf cell spots sub-equal. ♂ F 18 mm.
17 (18). Unh the black spots solid.
noemi De Nicéville 1885: ♂ Sikkim: type B.M.: figured. Fig Lep Ind. Fig of genitalia by Elwes & Edwards is of *tavoyana*.
B.M. 6 ♂ 2 ♀ Sikkim. 1 ♀ Assam.

18 (17). Unh with ring spots. Genitalia very different.
tavoyana Evans 1926: ♂ Tavoy: type B.M.
B.M. 4 ♂ 5 ♀ Burma (Karens to Mergui). 1 ♀ Peninsular Siam. 1 ♀ Borneo. (Malaya, coll Eliot.)

19 (17b). Upf upper cell a tiny dot, or absent. ♂ F 16 mm.
similis Elwes & Edwards 1897: ♂ Pulo Laut: type B.M.: figured, also genitalia figure. Fig Seitz.
B.M. 2 ♂ 3 ♀ Borneo.

20a (16b). Uph plain brown. Unh grey or brown with dark spots. ♂ F 18 mm.
20 (21). Upf without a sub-apical spot. Unh grey, sometimes bluish or yellowish.
sala Hewitson 1866: ♂ Singapore: type B.M. Figures in Rhop Java and Seitz are of *Suastus minuta aditia*.
Synonyms. *submaculata* Staudinger 1889: ♂ Palawan: figured. Fig Lep Ind.
maculicornis Elwes & Edwards 1897: ♂ Pulo Laut: type B.M.: figured and genitalia. Fig Seitz.
kanara Evans 1926: ♂ N. Kanara: type B.M.
B.M. 22 ♂ 17 ♀ S. India (N. Kanara, Coorg). 3 ♂ 1 ♀ Burma (Ataran to Mergui). 1 ♀ Siam. 1 ♂ Malaya. 5 ♂ 1 ♀ Borneo.

21 (20). Upf with 1 or 2 sub-apical spots. Unh brown with a purple wash.

fuscicornis Elwes & Edwards 1897: ♂ Pulo Laut: type B.M.: figured and genitalia. Fig Seitz.
B.M. 22 ♂ 3 ♀ Burma (Karens to Ataran). 1 ♂ Malaya. 3 ♂ Borneo.

22a (1a). Unh without conspicuous markings.
22 (23a). Upf no spot in space 4. Unh yellowish brown with paler veins.

corissa. 3 sub-species.
(a). Uph tawny discal area narrow, not entering cell. ♂ F 18 mm.
Sub-sp. **indrasana** Elwes & De Nicéville 1886: ♂ Tavoy: figured. Fig Lep Ind as *corissa.*
B.M. 24 ♂ 4 ♀ Burma (Ataran to Mergui). (Malaya, coll Cowan.)
(b). Uph tawny area wider, entering cell in ♀. ♂ F 19mm.
Sub-sp. **patmapana** Fruhstorfer 1911: ♂ Java: type B.M. Fig Rhop Java; Seitz, as *corissa.*
B.M. 2 ♂ 1 ♀ Sumatra. 7 ♂ 9 ♀ Java.
(c). ♀ uph as *patmapana*, but tawny area yellow, not orange.
Sub-sp. **corissa** Hewitson 1876: ♂ Borneo: type B.M. Fig Seitz.
Synonyms. *drancus* Plötz 1884: ♂ No loc.
latonia (Staudinger MS) Elwes & Edwards 1897=*corissa.*
B.M. 7 ♀ 14 ♀ Borneo.

23a (22). Upf with a hyaline spot in space 4, over the spot in space 3.
23 (24). Upf with a yellow spot in space 1b and uph a tawny discal area. Unh greenish yellow. ♂ F 16 mm.

telesinus Mabille 1878: ♂ E. Philippines: type B.M. Fig Seitz.
Synonym. *loenas* Mabille 1891: ♀ Philippines.
B.M. 4 ♂ 2 ♀ Philippines. 1 ♂ 1 ♀ Mindanao. 6 ♂ 7 ♀ Luzon. 1 ♂ Los Banos. 1 ♀ W. Samar.

24 (23). Upf no spot in space 1b other than the usual yellow streak over vein 1. Uph and unh plain brown. Palpi third segment thin and erect instead of stout and bent forward as in rest of genus.

pugnans De Nicéville 1891: ♀ Malaya: figured. Fig Lep Ind; Rhop Java; Seitz.

B.M. 14 ♂ 5 ♀ Burma (Ataran to Mergui). 9 ♂ 9 ♀ Malaya. 12 ♂ 12 ♀ Sumatra. 1 ♀ Siberut. 11 ♂ 8 ♀ Nias. 1 ♂ Banka. 4 ♂ 5 ♀ Java. 26 ♂ 17 ♀ Borneo.

J.11. LOTONGUS Distant 1886: type *calathus* Hewitson: fixed by author.

1 (2a). Unh without a conspicuous yellow central band.

calathus. 5 sub-species.

(a). Unh white terminal band broad, 2 mm., reaching vein 3. Upf spot in space 1b conspicuous. Typically, upf discal spots in cell, spaces 2 and 3, large and coalesced, and sub-apical spots absent: but often, in ♂, the discal spots are widely separated, cell spot divided and, in ♂ and ♀, the sub-apical spots are present. ♂ F 20 mm.

Sub-sp. **balta** nov: ♂ Kanbauk, Tavoy: type B.M. ♀ fig Lep Ind as *calathus.*

B.M. 4 ♂ 5 ♀ Burma. (Karens to Mergui). 8 ♂ 3 ♀ Siam 1 ♀ Tonkin.

(b). Unh white terminal band narrow or absent in ♂. Upf spot in space 1b small or absent. Upf in ♂, discal spots more or less separated and the cell spot divided. ♂ F 20 mm.

Sub-sp. **calathus** Hewitson 1876: ♀ Sumatra: type B.M. Fig Distant.

Synonyms. *schaedia* Hewitson 1876: ♂ Sumatra: type B.M.

maculatus Distant 1886: ♂ Malacca: type B.M.: figured. Fig Seitz (badly).

surus Mabille 1895: ♀ Borneo: type B.M.

B.M. 5 ♂ 2 ♀ Malaya. 4 ♂ 5 ♀ Sumatra. 1 ♀ 3 ♀ Banka. 1 ♀ Natuna. 5 ♂ 1 ♀ Borneo.

(c). ♂ unh white terminal band absent or vestigial: upf no spot in space 1b and discal spots small and widely separated, usually only an upper cell spot. ♀ upf with separated discal spots and no sub-apical spots. ♂ F 19 mm.

Sub-sp. **parthenope** Plötz 1886: ♂ Nias. Fig Weymer 1887; De Nicéville 1892 from Java, recte Nias; Seitz; Lep Ind ♂ as *calathus*.

Synonym. *traviata* Plötz 1886: ♀ Sumatra. Fig Seitz as *calathus*.

B.M. 19 ♂ 19 ♀ Nias. 6 ♂ 6 ♀ Sumatra (flying with *calathus* and more or less grading with it). 1 ♀ Borneo.

(d). Unh the white terminal band well marked, narrower and less extensive than in *banta*. ♂ upf discal spots large, separated by dark veins: cell spot usually not divided, spot in space 1b present, as well as the sub-apical spots. Larger, ♂ F 22 mm.

Sub-sp. **zalates** Mabille 1893: ♂ Java: type B.M. Fig Seitz; Rhop Java, as *calathus*.

B.M. 9 ♂ 10 ♀ Java.

(e). Unh with a conspicuous white central area. ♂ F 24 mm.

Sub-sp. **taprobanus** Plötz 1885: ♂ "Ceylon", recte Celebes. Fig Seitz.

Synonym. *mythecoides* De Nicéville 1898: ♂ Celebes: figured.

B.M. 21 ♂ 13 ♀ Celebes.

2a (1). Unh with a conspicuous yellow central band.

2 (3a). Unh the yellow band running from mid costa towards tornus. ♂ F 20 mm.

onara. 3 sub-species.

(a). ♂ upf with a curved black brand behind the spot in space 2, the inner edge of which is under the middle of the cell spot. ♂ ♀ uph, space 1c dark shaded on the yellow central area and the dark submarginal band not extending beyond vein 1b. Unh dorsal half of space 1c dark.

Sub-sp. **adorabilis** Fruhstorfer 1911: ♂ Sumatra: type B.M.

B.M. 1 ♂ Malaya. 4 ♂ N.E. Sumatra. 1 ♀ Siberut. 1 ♂ Borneo.

(b). ♂ upf no brand, inner edges of spot in cell and in space 2 in line. ♂ ♀ uph and unh dark submarginal band reaches tornus, tapering thereto: no dark shading in space 1c.

Sub-sp. **excellens** Staudinger 1889: ♂ Palawan: figured.

Synonym. *solex* Evans 1939: ♂ Borneo: type B.M.

B.M. 1 ♀ Malaya (1 ♂ coll Eliot). 2 ♂ 1 ♀ Borneo.

(c). ♂ upf no brand. Uph the dark submarginal band not reaching below vein 2: tornus broadly yellow.

Sub-sp. **onara** Butler 1870: ♀ "E. Indies", recte Java: type B.M. Fig Butler 1874, ♀; Seitz ♀; De Nicéville 1893, ♂; Rhop Java, ♂.

B.M. 1 ♂ 2 ♀ Java.

3a (2). Unh the yellow band running from mid costa to mid dorsum.

3 (4). Upf with a cell spot and a spot in space 1b. H tornal cilia orange.

sarala. 4 sub-species.

(a). Uph central band yellow. Upf cell spots conjoined and spots in spaces 2 and 3 overlap. ♂ F 20 mm.

Sub-sp. **sarala** De Nicéville 1889: ♀ Khasi Hills: figured. Fig Lep Ind.

B.M. 12 ♂ 9 ♀ Assam.

(b). Upf cell spots conjoined with the spots in spaces 2 and 3.

Sub-sp. **conjuncta** Evans 1932: ♀ Bhamo: type B.M. Only the type.

(c). Uph central band white. Upf cell spots separate and the discal spots not overlapping. ♂ F 25 mm.

Sub-sp. **chinensis** Evans 1932: ♂ W. Szechwan: type B.M.: fig Leech 1894 as *sarala* and in Seitz.

B.M. 9 ♂ 6 ♀ W. Szechwan (Ta Tsien Lou). 1 ♀ Siam. 2 ♀ Tonkin.

(d). Uph pale band obsolete in ♂, restricted in ♀. ♂ F 22 mm.

Sub-sp. **quinquepuncta** Joicey & Talbot 1921: ♂ Hainan: type B.M.: figured.

B.M. 6 ♂ 7 ♀ Hainan.

4 (3). Upf with hyaline yellow spots only in spaces 2 and 3. H cilia brown. Uph unmarked.

avesta Hewitson 1868: ♂ Sumatra: type B.M. Fig De Nicéville 1895; Lep Ind.

Synonym. *tamiata* (Staudinger MS) Elwes & Edwards 1897 = *avesta.*

B.M. 1 ♂ 1 ♀ Burma (Ataran). 1 ♂ Malaya. 2 ♂ Sumatra. 21 ♂ 17 ♀ Borneo.

J.12. ZELA De Nicéville 1895: type *zeus* De Nicéville: fixed by author.
Synonyms. *Zampa* De Nicéville 1895: type *zenon* De Nicéville: fixed by author.
Matapoides Druce 1913: type *smaragdinus* Druce: fixed by author.

1a (3a). ♂ upf with a narrow, irregular discal stigma from base of vein 3 nearly to mid vein 1: dorsum straight.
1 (2). ♂ uph no hair tuft, but clothed with dense hairs. Upf with hyaline spots in spaces 2, 3, 6 and cell.
zeus. 3 sub-species.
(a). ♂ unf dorsum broadly covered with pale orange scales. Upf and unf, apex broadly paler. ♂ unf and ♂ ♀ unh with a yellow spot at end of cell. Antennal club above pale brown. ♂ F 22 mm.
Sub-sp. **optimus** Fruhstorfer 1911: ♂ Khasi Hills: type B.M. Fig Lep Ind.
B.M. 1 ♂ Assam. 3 ♂ 1 ♀ Burma (Karens to Mergui). 2 ♂ Siam.
(b). ♂ unf no orange scaling, apex not conspicuously paler and no yellow spot at end of cell. ♂ antennal club white above. ♂ F 21 mm.
Sub-sp. **zeus** De Nicéville 1895: ♂ Pulo Laut: type B.M.: figured. Fig Seitz (badly).
B.M. 1 ♂ Malaya. 1 ♂ Sumatra. 4 ♂ Borneo.
(c). Like *optimus*, larger, ♂ F 24 mm. Upf spots larger and a small upper cell spot conjoined to the lower spot. ♂ antennal club white above. Unf and unh spots at cell ends obsolete.
Sub-sp. **major** Evans 1932: ♂ Mindoro: type B.M.
B.M. 2 ♂ Mindoro.

2 (1). ♂ uph with a hair tuft from near base over cell: unf a black patch of modified scales above dorsum on a speculum.
zero. 2 sub-species.
(a). ♂ upf stigma pale yellow. Upf small hyaline spots in spaces 3, 6 and cell. Below end cells with a yellow spot. Unh dark ochreous. ♂ F 23 mm.

Sub-sp. **elioti** Evans 1939: ♂ Langkawi Is.: type B.M.
B.M. Only the type (1 ♂ also coll Eliot).
(b). ♂ stigma whitish. Above and below, unmarked. ♀ unf with obscure pale spots in spaces 2, 3 and cell. ♂ F 22 mm.
Sub-sp. **zero** Evans 1932: ♂ Sandakan: type B.M.
B.M. 2 ♂ Borneo. 1 ♀ Sumatra.

3a (1a). ♂ upf no stigma: uph with a hair tuft. ♂ antennal club white.
3 (4). ♂ uph hair tuft narrow, concolorous with wing: unf dorsal area highly polished. ♂ unf basal two-thirds of costa and apex conspicuously paler: ♀ also has the basal two-thirds of the unh paler. ♂ F 19 mm.
zenon. 2 sub-species.
(a). Very dark and upf unmarked.
Sub-sp. **cowani** Evans 1939: ♂ Johore: type B.M.
B.M. 1 ♂ 1 ♀ Malaya.
(b). Paler. Upf with small hyaline spots in spaces 2 and 3, the former narrow and may be absent. ♂ unf, yellow bar at end cell.
Sub-sp. **zenon** De Nicéville 1895: ♂ Pulo Laut: type B.M.: figured. Fig Seitz (very badly).
B.M. 1 ♀ Siberut. 3 ♂ 1 ♀ Borneo. 1 ♂ Palawan.

4 (3). ♂ uph, hair tuft broad, black and situated on a speculum: unf, above dorsum with black scaling on a speculum. ♂ antennal club white above. Head and thorax with iridescent green scaling, spreading to wing, which in ♀ is basally indigo, when viewed direct. ♂ ♀ unmarked. ♂ F 24 mm.
***smaragdinus** Druce 1913: type B.M.: figured.
B.M. 1 ♀ Malaya. 1 ♂ Borneo.

J.13. GANGARA Moore 1881: type *thyrsis* Fabricius: fixed by author.
Synonym. *Paduka* Distant 1886: type *lebadea* Hewitson: fixed by author as *glandulosa* Distant, a synonym of *lebadea*.

1 (2a). Upf with well-marked sub-apical spots, as well as large central spots.

thyrsis. 4 sub-species.

(a). Upf with small spot above vein 1. ♂ F 33 mm.

Sub-sp. **clothilda** Herrich-Schäffer 1869: no loc.

B.M. 12 ♂ 4 ♀ Ceylon.

(b). Upf no small spot above vein 1. ♂ F 36 mm.

Sub-sp. **thyrsis** Fabricius 1775: "America". Fig Distant 1886; Lep Ind.

Synonyms. *pandia* Moore 1857: Calcutta.

yasodara Fruhstorfer 1910: ♂ Andamans.

hainana Sonan 1920: ♂ Hainan.

B.M. 12 ♂ 9 ♀ S. India. 2 ♂ 1 ♀ N.W. India (Kangra, Delhi). 2 ♂ 2 ♀ Sikkim. 5 ♂ Assam. 16 ♂ 10 ♀ Burma. 17 ♂ 7 ♀ Andamans. 2 ♂ 1 ♀ S. Nicobars. 4 ♂ 3 ♀ Siam. 4 ♂ Indo-China. 3 ♂ 1 ♀ Hainan. 1 ♀ Malaya. 7 ♂ 2 ♀ Sumatra. 1 ♀ Banka. 2 ♂ 5 ♀ Nias. 7 ♂ 3 ♀ Borneo. 2 ♂ Celebes.

(c). F spots enlarged, area of spot in space 2 greater than the brown area beyond it: spot in space 1b present in ♀ and some males. ♂ F 36 mm.

Sub-sp. **pandina** nov: ♂ Java: type B.M.

B.M. 18 ♂ 9 ♀ Java.

(d). F sub-apical spots reduced, that in space 8 absent or small, spot in space 1b present, spot in space 2 as in *thyrsis*. Wings more elongate. ♂ F 38 mm.

Sub-sp. **philippensis** Fruhstorfer 1911: ♂ Philippines.

12 ♂ 2 ♀ Philippines (Mindanao).

2a (1). Upf without sub-apical spots.

2 (3). Unh with small sharply marked white spot near base of space 7. ♂ upf without glandular streaks and with central hyaline yellow spots, that in space 3 reaching base of the space. ♂ F 26 mm.

sanguinocculus Martin 1895: ♂ N.E. Sumatra. Fig Elwes & Edwards 1897; Seitz.

B.M. 1 ♂ Burma (Karens). 4 ♂ 3 ♀ Malaya. 2 ♂ 1 ♀ Sumatra.

3 (2). Unh no spot at base of space 7. ♂ above unmarked, disc upf clothed with dense hairs: ♀ with central yellow hyaline spots. Unh with a pale band. ♂ F 27 mm.

lebadea. 3 sub-species.

(a). ♀ upf with spot in space 1b and central spots overlapping.

Sub-sp. **subfasciata** Moore 1878: ♂ Ceylon. Fig Lep Ind.
B.M. 22 ♂ 9 ♀ Ceylon.

(b). ♀ upf spots smaller and whiter, not overlapping.

Sub-sp. **andamanica** Wood-Mason & De Nicéville 1881: ♂ Andamans.
B.M. 2 ♂ 5 ♀ Andamans.

(c). ♀ upf spot in space 2 broadly overlapping the cell spot, but far from the spot in space 3, no spot in space 1b.

Sub-sp. **lebadea** Hewitson 1886: ♂ Borneo: type B.M. Fig Seitz; Rhop Java.
Synonym. *glandulosa* Distant 1886: ♂ Malaya: figured. Fig Seitz.
B.M. 1 ♀ Sikkim. 1 ♂ Assam. 1 ♂ Burma (Karens). 1 ♂ Indo-China. 1 ♂ Malaya. 8 ♂ 3 ♀ Java. 1 ♀ Bawean. 3 ♂ 1 ♀ Borneo.

J.14. ERIONOTA Mabille 1878: type *thrax* Linnaeus: fixed by Watson 1893.

1a (7). Upf no spot in space 1b.
1b (6). Upf apical spots absent or insignificant.
1c (5). Unf with a pale area over the spot in space 3.
1d (3a). ♂ upf apex usually paler, but without a conspicuous sharply defined pale area. ♂ ♀ only basal half or two-thirds of the club white (except in *thrax mindana*). Large, ♂ F 33 mm.
1 (2). ♂ ♀ F apex rounded and termen convex: vein 1 < vein 7 H. Genitalia very different: aedeagus, seen ventrally, nearly as wide as the uncus, whereas in *thrax* it is not half as wide.

torus Evans 1941: ♂ Sikkim: type B.M. Fig Distant 1886 as *thrax*.
B.M. 2 ♂ Dehra Dun. 13 ♂ 13 ♀ Sikkim. 14 ♂ 5 ♀ Assam. 1 ♀ Tavoy. 2 ♂ 1 ♀ Tonkin. 4 ♂ 2 ♀ China (Fukien, Kwang Tung, Kwang Si). 15 ♂ 3 ♀ Malaya.

2 (1). ♂ ♀ F apex acute and termen straight: vein 1 = vein 7 H.

thrax. 3 sub-species.

(a). ♂ upf cell spot 5 mm. long.

Sub-sp. **thrax** Linnaeus 1767: ♂ Java: type coll Linnean Soc London. Fig Lep Ind; Seitz, vol. 1 and vol. 9.

B.M. 1 ♂ 1 ♀ Sikkim. 4 ♂ 4 ♀ Assam. 7 ♂ 2 ♀ Burma. 3 ♂ 2 ♀ Siam. 1 ♀ Indo-China. 9 ♂ 7 ♀ Malaya. 9 ♂ 9 ♀ Sumatra. 9 ♂ 9 ♀ Nias. 1 ♂ Banka. 12 ♂ 12 ♀ Java. 2 ♂ Sumbawa. 1 ♀ Lombok. 11 ♂ 11 ♀ Borneo. 1 ♀ Palawan. 1 ♀ Billiton. 7 ♂ Philippines (Luzon, Mindoro, Taytoï). 27 ♂ 10 ♀ Celebes and Sangir.

(b). ♂ F cell spot longer, 7 mm., outwardly excavate as in *thrax*. Typically with entire antennal club white, but variable.

Sub-sp. **mindana** Evans 1941: ♂ Mindanao: type B.M.

B.M. 8 ♂ 8 ♀ Mindanao. 1 ♂ Sulu. 1 ♂ W. Samar. 1 ♂ 1 ♀ Luzon.

(c). ♂ F cell spot 9 mm. long and outwardly rounded. Upf ♀, and often ♂, with semi-hyaline sub-apical spots: also spot in space 2 tends to extend slightly into space 1b.

Sub-sp. **hasdrubal** Fruhstorfer 1910: ♂ Batjan: type B.M. Fig Seitz.

B.M. 28 ♂ 9 ♀ N. Moluccas (Obi, Batjan, Halmaheira, Ternate).

3a (1d). ♂ upf apex with a sharply marked white area: entire antennal club white. Wing shape of *thrax*. Smaller, F 30 mm. or less. ♀ only separable from *thrax* by its smaller size. Genitalia like *thrax*, but clasp variable.

3 (4). F spot in space 2 overlapping the cell spot.

acroleucus. 3 sub-species.

(a). F spots small and nearly white. ♂ F 26 mm.

Sub-sp. **acroleucus** Wood-Mason & De Nicéville 1881 (Aug.): ♂ Andamans. Fig Lep Ind.

Synonyms. *hiraca* Moore 1881 (Sept.): ♂ Andamans: type B.M.

lara Swinhoe 1890: ♂ Nicobars: type B.M.

B.M. 15 ♂ Andamans. 3 ♂ "Nicobars" and 2 ♂ "Kolar, S. India" fide Swinhoe.

(b). F spots yellow. Expanse and size of spots variable.

Sub-sp. **apex** Semper 1892: ♂ Luzon.
Synonyms. *alexandra* Semper 1892: ♀ N.W. Luzon. Fig Seitz.
apicalis Evans 1932: ♂ Bassein: type B.M.
B.M. 2 ♂ Sikkim. 2 ♂ 1 ♀ Assam. 7 ♂ 2 ♀ Burma. 2 ♂ 1 ♀ Siam. 1 ♂ Tonkin. 6 ♂ Malaya. 1 ♂ Nias. 1 ♂ Batoe Is. 1 ♂ Sipora. 5 ♂ Java. 3 ♂ Borneo. 10 ♂ 2 ♀ Philippines.
(c). F spots clear white and larger than in *acroleucus*. ♂ F 30 mm.

Sub-sp. ***sakita** Ribbe 1895: E. Celebes.
Synonym. *toradja* Fruhstorfer 1911: ♂ E. Celebes: type B.M.
B.M. 8 ♂ Celebes.

4 (3). F spot in space 2 not overlapping the cell spot, central between the cell spot and the spot in space 3: otherwise as *acroleucus apex*. ♂ F 26 mm. Genitalia very different, nearer to *grandis*.

tribus Evans 1941: ♂ Tombugu, E. Celebes: type B.M.
B.M. 5 ♂ 2 ♀ Celebes.

5 (1c). Unf with no pale area over the spot in space 3. Spots white, placed as in *thrax*. Genitalia considerably different, uncus without the long side horns.

grandis. 2 sub-species.
(a). ♂ upf with a sharply marked pale apical area: spots rather small, cell spot 2 mm. long, apical dots always present in ♀ and often in ♂. ♂ antennal club with only the basal portion white. Wing shape of *torus*. ♂ F 26 mm.

Sub-sp. **grandis** Leech 1894: ♂ Wa Shan: type B.M.: figured. Fig Seitz, vol. 1.
B.M. 16 ♂ 12 ♀ W. China (Ta Tsien Lou area).
(b). ♂ upf no sharply marked pale area: spots larger, cell spot 4 mm. long, no apical dots. ♂ antennal club all white. Wings more rounded: ♂ dorsum F > termen. ♂ F 25 mm. Genitalia differ somewhat.

Sub-sp. **alsatia** Evans 1938: ♂ Li-kiang, Yunnan: co-type B.M.
B.M. 2 ♂ 1 ♀ type loc.

6 (1b). F with 3 sharply marked hyaline yellow apical spots: discal spots as in *thrax*. Below, very conspicuous pale area about end cell H and above space 3 F. Upf apex as in *acroleucus*. ♂ antennal club only white at base. Wing shape of *thrax*. ♂ F 30 mm.

sybirita Hewitson 1876: ♀ Singapore: type B.M. Fig Distant 1886; Seitz.

Synonym. *mabillei* Staudinger 1889: ♂ Palawan: figured.

B.M. 1 ♀ Tavoy. 1 ♀ Siam. 1 ♂ 2 ♀ Malaya. 1 ♂ Borneo.

7 (1a). ♀ upf with broad central orange band of conjoined spots in spaces 1b, 2, 3 and cell. Otherwise unmarked dark brown, but apical spots may be present upf. ♀ F 25 mm. ♂ unknown.

harmachis Hewitson 1878: ♀ Sumatra: type B.M.

Synonym. *staudingeri* Distant 1886: ♀ Malaya: figured. Fig in Seitz.

B.M. 2 ♀ Malaya. 1 ♀ Sumatra. 1 ♀ Banka. 1 ♀ Borneo.

J.15. ILMA Swinhoe 1905: type *irvina* Plötz: type specified as *jovina* Swinhoe, which is a synonym of *irvina*.

Single species. Above brown with a continuous yellow band upf, which is hyaline in spaces 2, 3 and cell. H cilia whitish. ♂ F 26 mm.

irvina Plötz 1886: Celebes.

Synonym. *jovina* Swinhoe 1905: ♂ Celebes: type B.M.

B.M. 9 ♂ 13 ♀ Celebes.

J.16. GE De Nicéville 1895: type *geta* De Nicéville: fixed by author.

Single species. ♂ unmarked brown, except for the peculiar circular brand upf overlaid by a hair tuft. ♀ upf with suffused yellow discal spots in spaces 2 and 3 and subapical spots in spaces 6 and 7: unf the outer half of the wing more or less conspicuously pale yellow, except for the narrow brown termen. ♂ F 16–17 mm.

geta De Nicéville 1895: ♂ Penang: figured. Fig Seitz.

B.M. 2 ♂ 2 ♀ S. Burma (Ataran to Mergui). 2 ♂ Malaya. 2 ♂ 1 ♀ Sumatra. 1 ♂ Batoe Is. 3 ♂ Java. 2 ♂ Borneo.

J.17. MATAPA Moore 1881: type *aria* Moore: fixed by author.

1a (6). ♂ upf with a narrow stigma. Uph not yellow, apart from cilia.

1 (2a). H cilia white or very pale yellow. ♂ upf stigma black, inconspicuous. Above uniform dark brown: below, ♂ ferruginous, ♀ ochreous brown, unmarked. End abdomen brown and in ♀ with the brown scales overlying densely packed grey scales. ♂ F 20 mm.

aria Moore 1865: ♂ Bengal: type B.M. Fig Lep Ind (pl. 797/1a and 1b); Rhop Java; Seitz.

Synonyms. *neglecta* Mabille 1876: ♀ Manila: type B.M. *pulla* Plötz 1882: ♂ Java.

B.M. 7 ♂ 3 ♀ Ceylon. 14 ♂ 14 ♀ S. India. 1 ♀ Central Prov., India. 1 ♀ N.W. Himalayas (Mussoorie). 1 ♂ 1 ♀ Ganjam. 2 ♂ Bengal. 2 ♂ 1 ♀ Sikkim. 11 ♂ 5 ♀ Assam. 14 ♂ 9 ♀ Burma. 10 ♂ 5 ♀ Andamans. 1 ♂ 4 ♀ Siam. 4 ♂ 4 ♀ E. China (Kiang Si, Fukien, Kwang Tung). 4 ♂ 1 ♀ Hainan. 4 ♂ 1 ♀ Malaya. 11 ♂ 6 ♀ Sumatra. 15 ♂ 8 ♀ Java. 6 ♂ 4 ♀ Banka. 1 ♀ Lombok. 12 ♂ 10 ♀ Borneo. 7 ♂ 2 ♀ Philippines.

2a (1). H cilia conspicuously orange.

2b (4a). ♂ upf stigma grey, conspicuous.

2 (3). ♂ upf stigma broad, long and curved. H cilia narrowly pale orange. Colouring of wings and end abdomen in ♀, as *aria*. ♂ F 22 mm.

druna Moore 1865: ♂ Bengal: type B.M. Fig Lep Ind (pl. 797/3); Seitz; Hewitson as *aria* (pl. *Hesperia* 3/24 and 25).

Synonym. *shalgrama* De Nicéville 1883: ♂ Sikkim: figured.

B.M. 16 ♂ 8 ♀ Sikkim. 3 ♂ 3 ♀ Assam. 19 ♂ 7 ♀ Burma. 1 ♀ Indo-China. 2 ♂ 2 ♀ Malaya. 2 ♂ Sumatra. 20 ♂ 15 ♀ Java. 5 ♂ 1 ♀ Borneo.

3 (2). ♂ upf stigma narrow, short and straight. H cilia broadly bright orange. End of abdomen orange and ♀ without a tuft of dense underlying grey scales. Above uniform dark brown, with bluish-green metallic sheen on the thorax and wing bases, conspicuous in ♀. Below fuliginous, with black veins. ♂ F 20 mm.

sasivarna Moore 1865: ♂ Bengal: type B.M. Fig Lep Ind, correctly in pl. 798/1, 1a and 1b and as *aria* on pl. 797/1; Seitz.
B.M. 12 ♂ 9 ♀ Sikkim. 9 ♂ 12 ♀ Assam. 11 ♂ 10 ♀ Burma. 2 ♂ Indo-China. 1 ♀ Hainan. 1 ♂ 2 ♀ Malaya. 1 ♂ 1 ♀ Sumatra.

4a (2b). ♂ upf stigma black and inconspicuous as in *aria*. Cilia and end abdomen as in *sasivarna*. ♂ F 24 mm.
4 (5). ♂ upf with grey scaling at apex, more conspicuous in DSF, absent in ♀. ♂ ♀ unf apex conspicuously and broadly grey, also basal half of costa, more faintly in WSF. Unh basal half of wing conspicuously grey in DSF, faintly in WSF: outer half of wing dark brown, no ferruginous tinge.

cresta nov: ♂ Sikkim: type B.M. Fig Lep Ind, pl. 797/2, 2a ♂ as *purpurascens*. This insect was wrongly identified as *druna* by De Nicéville 1883, when describing his *shalgrama* and subsequent authors have followed him, including Elwes & Edwards 1897, who figured the genitalia as *druna*, and Evans 1932.
B.M. 7 ♂ 3 ♀ Sikkim. 9 ♂ 1 ♀ Assam. 17 ♂ 7 ♀ Burma. 1 ♂ Siam. 1 ♀ Indo-China. 9 ♂ 4 ♀ Andamans. 2 ♂ 1 ♀ Malaya. 1 ♂ Sumatra. 3 ♂ 3 ♀ Borneo.

5 (4). ♂ ♀ above uniform dark brown, ♂ usually with a strong purple gloss upf (sometimes present in *cresta*). ♂ unf slightly paler at apex, but never to the same extent as in *cresta*. ♀ below uniform pale brown. Genitalia very different.

purpurascens Elwes & Edwards 1897: ♂ Khasi Hills: type B.M.: ♂ and genitalia figured. Fig Seitz.
B.M. 2 ♂ 3 ♀ Sikkim. 3 ♂ 1 ♀ Assam. 2 ♂ 3 ♀ Karens, Burma.

6 (1a). ♂ upf brand consists of a broad shining black to grey area from above the origin of vein 2 under the cubitus and the basal quarters of vein 3, as well as two small dots in space 1b. Uph the tornal yellow colouring extends on the termen to a width of 1 to 5 mm. Below, dark brown in ♂, paler in ♀, with the tornal yellow area unh as above. ♂ F 24 mm.

celsina Felder 1867 (March): ♀ Celebes: type B.M.: figured. Fig Seitz.
Synonyms. *hyrmina* Hewitson 1867 (April): ♂ Celebes: type B.M.
assur Mabille 1876: ♂ Celebes: type B.M.
ractaya Fruhstorfer 1911: ♀ Mindanao: apud Semper 1892.
B.M. 16 ♂ 11 ♀ Celebes. 4 ♂ 4 ♀ Bangkai Is.

J.18. PUDICITIA De Nicéville 1895: type *pholus* De Nicéville: fixed by author.

Single species. Brown with yellow hyaline spots upf and uph. Head and scapulae with dark green iridescence. ♂ F 28 mm.

pholus De Nicéville 1889: ♀ Assam: figured. Fig Lep Ind; Seitz.
B.M. 1 ♂ Sikkim. 20 ♂ 7 ♀ Naga Hills, Assam.

J.19. UNKANA Distant 1886: type *ambasa* Moore: specified by author as *batara* Distant, which is a sub-species of *ambasa*.

Synonym. *Zea* Distant 1886: type *mytheca* Hewitson: fixed by author.

1a (3). Unh mostly whitish with dark veins.
1 (2). ♀ uph with a dark brown border reaching dorsum. Upf dark brown with well-separated hyaline white or pale yellow discal and apical spots.

ambasa. 5 sub-species.
(a). Unh veins more conspicuously dark and dark areas broader. ♂ unh cell usually pale with a broad central dark line. ♀ unh tornal dark area solid, extending more than half-way between termen and cell and reaching vein 4. ♂ F 27, ♀ 33 mm.

Sub-sp. **attina** Hewitson 1866: ♀ "India": type B.M. Fig Lep Ind; Seitz.
B.M. 18 ♂ 17 ♀ Burma (Karens to Mergui). 2 ♂ 1 ♀ Siam.
(b). Similar, but unh veins not so dark. Smaller, ♂ F 26, ♀ 30 mm.

Sub-sp. **batara** Distant 1886: ♂ Malacca: type B.M.: figured and ♀ also, as *attina*.
B.M. 5 ♂ 3 ♀ Malaya. 2 ♂ 2 ♀ Sumatra. 1 ♂ 1 ♀ Batoe Is. 4 ♂ 5 ♀ Borneo.
(c). Like *batara*, but unh dark tornal area narrower, just reaching half-way between termen and cell.

Sub-sp. **ambasa** Moore 1857: type, larva and pupa figs from Java, which are identical with figs in Rhop Java, named *attina*.
Synonyms. *latreillei* Felder 1867: ♀ Java: type B.M.: figured.
cruda Herrich-Schäffer 1869: ? loc.
anitta Plötz 1882: ♂ loc. ?: copy of MS fig in B.M. Fig Seitz.
palawana Fruhstorfer 1911: ♂ Palawan, apud Staudinger 1889.
chaon (Boisduval MS) Moore 1857. B.M. specimens so labelled.
B.M. 11 ♂ 13 ♀ Java. 2 ♂ 2 ♀ Palawan.
(d). ♀ unh tornal dark area obsolete in spaces 2 and 3. Small ♂ F 25, ♀ 28 mm.

Sub-sp. **tranga** nov: ♀ Nias: type B.M.
1 ♂ 5 ♀ Nias.
(e). ♀ as *ambasa*, but dark border at tornus narrow, 3 mm. ♀ F 29 mm.

Sub-sp. **mindanaensis** Fruhstorfer 1911: ♀ Mindanao, apud Semper 1892. Fig Seitz.
B.M. 1 ♀ Mindanao.

2 (1). ♀ uph yellow and the dark border does not extend towards the tornus beyond vein 1b. Upf a conspicuous basal yellow streak on dorsum. Unh yellowish with very dark veins. ♀ F 34 mm.

flava Evans 1932: ♀ Tonkin: type B.M.
B.M. 1 ♀ Shan St., Burma. 1 ♀ Tonkin.

3 (1a). Unh brown with a very broad, sharply defined silver band from mid costa to vein 1b. ♂ F 22 mm.

mytheca. 2 sub-species.

(a). Upf with small hyaline yellow spots in spaces 2, 3, and cell.

Sub-sp. **mytheca** Hewitson 1877: ♂ Malacca. Fig Distant 1886 and Seitz.

B.M. 2 ♂ Mergui, Burma. 1 ♂ Malacca. 4 ♂ Sumatra. 1 ♂ Banka. 4 ♂ Borneo.

(b). Upf unmarked.

Sub-sp. **kala** Evans 1932: ♂ Nias: type B.M.

B.M. Type only.

J.20. HIDARI Distant 1886: type *irava* Moore: fixed by author.

1a (3). Upf hyaline yellow spot in space 2 not reaching origin of vein 3: central spots in spaces 2, 3 and cell separate and equidistant.

1 (2). Unh and apex unf pale brown with more or less well-developed small brown, whitish centred, spots, and, unh, with a small pale spot near upper end of cell. Upf normally with rather large hyaline spots in spaces 1b, 2, 3, cell and a smaller one in space 6. ♂ F 26, ♀ 30 mm.

irava Moore 1857: name for *thrax* Geyer, nec Linnaeus, 1837 Zuträge Exot Schmett, pl. 151/figs B 75, 876. Fig Lep Ind; Seitz; Rhop Java.

Synonyms. *hypaepa* Hewitson 1868: for *thrax* Geyer. *thracimima* Verity 1931: ♀ "Canton, ex Maison Bang Haas mixed in with a packet of *Erionota thrax*". Probably a ♀ from Java.

B.M. 14 ♂ 2 ♀ S. Burma. 1 ♂ 1 ♀ Siam. 8 ♂ 6 ♀ Malaya. 12 ♂ 11 ♀ Sumatra. 8 ♂ 4 ♀ Banka. 10 ♂ 9 ♀ Java. 8 ♂ 8 ♀ Borneo. 1 ♂ Sulu Archipelago.

2 (1). Unh and apex unf pale brown tessellated with dark brown dashes: unh with small discal spots as in *irava*, no pale cell spot, but with a more or less developed brown streak under vein 8. Above, as *irava*. ♂ F 22 mm.

bhawani De Nicéville 1888: ♂ Arracan Coast, Burma: figured. Fig Lep Ind; Seitz.
B.M. 1 ♀ Lakhimpur. Assam. 1 ♂ Toungoo, Burma. 1 ♂ Langkawi Is., Malaya.

3 (1a). Upf hyaline yellow spot in space 2 reaches origin of vein 3 and is nearer to the cell spot than to the spot in space 3. Unh and apex unf dark brown with more or less developed dark spots, as in *irava*, as well as a small pale upper cell spot. Antennal club white ringed before apiculus.

doesoena. 2 sub-species.
(a). ♂ F 30 mm. Upf the small quadrate spot in space 1b is against vein 1.
Sub-sp. ***doesoena** Martin 1895: ♂ N.E. Sumatra.
B.M. 3 ♂ Sumatra. 1 ♂ Batoe Is. 1 ♂ Sipora Is.
(b). ♂ F 32, ♀ 38 mm. Upf the spot in space 1b much larger and extending right across space 1b: spots in space 2 and cell larger, in ♀ each is 5 mm. long.
Sub-sp. **gloria** nov: ♂ Kina Balu; August 1903: J. Waterstradt: type B.M.
B.M. 2 ♂ 1 ♀ Kina Balu, Borneo.

J.21. EETION De Nicéville 1895: type *elia* Hewitson: fixed by author.

Single species. Dark brown with hyaline white spots F and H: uph dorsum white, reaching the discal spots in ♀. Unh basal area shining white up to the discal spots. ♂ upf with a curved black seam inside the spot in space 2: unf an upturned tuft of brown hairs from near base dorsum. ♂ F 25 mm.

elia Hewitson 1866: ♂ Sumatra: type B.M. ♀ fig Distant 1886.
Synonyms. *eburus* Plötz 1885: ♀ Malacca. Fig Seitz.
magniplaga Fruhstorfer 1911: ♂ Borneo: type B.M.
ayankara Fruhstorfer 1911: ♂ Perak, apud Distant 1886.
B.M. 1 ♂ Lenya Valley, S. Burma. 13 ♂ 7 ♀ Malaya. 2 ♂ Sumatra. 22 ♂ 11 ♀ Borneo.

J.22. ACERBAS De Nicéville 1895: type *anthea* Hewitson: fixed by author.

1a (5). Uph white area not reaching tornus.
1 (2a). Upf without cell spots. ♂ unf with a large area of black modified scales below cell to vein 1. F vein 2 rising much nearer to base than to origin of vein 3. ♂ F 18 mm.

anthea. 3 sub-species.
(a). As *anthea*, but unh submarginal dark area unbroken.

Sub-sp. **pista** nov: ♂ Siam, Hoop Bon: May 1914: E. J. Godfrey: type B.M.
B.M. 2 ♂ Siam.
(b). Unh central white area penetrates deeply into the submarginal dark band in space 2 in ♂ and spaces 2 and 3 in ♀.

Sub-sp. **anthea** Hewitson 1868: ♀ Singapore: type B.M. Fig Distant 1886 (♀ type); Lep Ind ♂ and ♀.
Synonyms. *ciliatus* Butler 1877: ♀ Malacca: type B.M. *tagiadoides* (Mabille MS) Elwes & Edwards 1897=*anthea*.
B.M. 8 ♂ 2 ♀ Burma (Karens to Mergui). 2 ♀ Malaya. 1 ♂ Sumatra. 1 ♂ 4 ♀ Borneo. 1 ♀ "Philippines"?
(c). Unh, the white area more extensive and the penetration of the dark border reaches the termen in space 3, while the upper part of the border is more or less divided by white veins.

Sub-sp. **javanica** Snellen 1910: ♂ Java: figured. Fig in Seitz as *tagiadoides*.
B.M. 9 ♂ 6 ♀ Java.

2a (1). Upf with 1 or 2 spots in the cell.
2b (4). F vein 2 as in *anthea*: spot in space 2 directly under the cell spot and the origin of vein 3.
2 (3). Upf with a single upper cell spot.

duris. 2 sub-species.
(a). Smaller, ♂ F 17 mm. Upf apical spots well marked. Uph, upper end of the white band suffused. Unf, no yellow costal spot, nor, in ♂, a large white spot in space 1b. Unh no yellow colouring at the upper end of the white band.

Sub-sp. **dorka** nov: ♂ Pulo Laut: June 1889: W. Doherty: type B.M. ♀ fig Seitz as *martini*: ♂ genitalia fig Elwes & Edwards 1897 as *martini*.

B.M. 3 ♂ 1 ♀ Borneo.

(b). Larger, ♂ F 19 mm. ♂ upf apical spots faint or absent. Uph, upper end of white band sharply defined. Unf, ♂ ♀ with yellow suffused scales below end of vein 12 and a large white spot in space 1b. Unh, upper end of white band suffused yellow.

Sub-sp. **duris** Mabille 1883: ♂ Philippines. ♀ fig Semper 1892 and in Seitz.

Synonym. *mabillei* (Staudinger MS) Semper 1892=*duris*.

B.M. 1 ♀ Luzon. 3 ♂ Mindanao. 2 ♂ 3 ♀ Mindoro. 3 ♂ 3 ♀ Philippines.

3 (2). ♂ upf with 2 equal cell spots. Resembles *duris*: ♂ F 19 mm. Upf apical spots faint. Uph band as in *duris*, but not reaching dorsum: tapers and ends at vein 1b, followed by a white streak in space 1b. Unf the yellow costal suffusion is more extensive, no white spot in space 1b. Unh the white band is outwardly excavate in space 1b and at the upper end there are only traces of yellow colouring. The genitalia are considerably different.

selta nov: ♂ Lawas, Borneo: A. Everett: type B.M.

B.M. Only the type.

4 (2b). F vein 2 rises mid base and origin of vein 3: spot in space 2 placed well beyond the origin of vein 3 and close to the spot in space 3: 2 cell spots. ♂ F 22 mm.

martini Distant & Pryer 1887: ♀ N. Borneo.

Synonym. *nitidifasciata* Elwes & Edwards 1897: ♂ Labuan: type B.M.: figured and ♂ genitalia. Fig Seitz.

B.M. 9 ♂ 2 ♀ Burma (Karens to Tavoy). 2 ♂ 1 ♀ Malaya. 3 ♂ 1 ♀ Sumatra. 8 ♂ 3 ♀ Borneo.

5 (1a). Uph and unh tornal area broadly white. Upf hyaline spots in spaces 2 and 3 and dots in spaces 6 to 8. ♂ F 24 mm.

azona Hewitson 1866: ♂ Celebes: type B.M. Fig De Nicéville 1898.

Synonym. *cretura* Plötz 1886: Celebes.
B.M. 8 ♂ 7 ♀ Celebes.

J.23. PIRDANA Distant 1886: type *hyela* Hewitson: fixed by author.

1(2a). Below, veins conspicuously paler than ground.
hyela. 4 sub-species.
(a). ♂ ♀ unf dorsum paler up to vein 2. Uph tornal orange area 1 mm. wide. Veins unh edged pale shining blue or green on a dark indigo ground. ♂ dark brown above: ♀ blue. ♂ F 23 mm.
Sub-sp. **major** Evans 1932: ♂ Sikkim: type B.M. Fig Lep Ind as *rudolphii*.
B.M. 1 ♂ Sikkim. 8 ♂ 2 ♀ Assam.
(b). Similar, but smaller. ♂ F 20 mm.
Sub-sp. **rudolphii** Elwes & De Nicéville 1886: ♂ Tavoy: figured. Fig Distant 1886 as *hyela*.
B.M. 16 ♂ 15 ♀ Burma (Karens to Mergui). 3 ♂ 3 ♀ Siam. 1 ♂ 1 ♀ Malaya.
(c). Unf dorsum darker. Uph tornal orange area up to 3 mm. wide. ♂ F 22 mm.
Sub-sp. **hyela** Hewitson 1867 (April): ♂ Java: type B.M. Fig Seitz as *hyela* and as *rudolphii*.
Synonym. *scanda* Fruhstorfer 1911: ♂ Java: type B.M.
B.M. 4 ♂ 3 ♀ Sumatra. 20 ♂ 16 ♀ Java. 6 ♂ 11 ♀ Borneo. 1 ♀ Palawan. 1 ♂ Luzon. 2 ♀ Philippines.
(c). Unf dorsum dark. Unh the shining blue or green colouring covers the entire wing, leaving whitish veins. ♂ uph tornal orange area 5 mm. wide: in ♀ extending half-way along dorsum. ♂, above, with a dark blue shining gloss. ♂ F 22 mm.
Sub-sp. **ismene** Felder 1867 (Nov.): ♂ Celebes: type B.M.: figured. Fig Seitz.
Synonym. *sargon* Mabille 1876: ♀ Celebes: type B.M.
B.M. 3 ♂ 3 ♀ Celebes.

2a (1). Below, veins not conspicuously paler on the shining blue to green ground. ♂ F 22 to 23 mm.
2 (3). Antennae plain. ♂ above dark brown: ♀ bases shining blue.

distanti. 3 sub-species.

(a). Uph tornal orange area confined to cilia in ♂: in ♀ ½ mm.

Sub-sp. **spenda** nov: ♂ Kawkereik, Dawnas, Burma: type B.M.

B.M. 12 ♂ 2 ♀ Burma (Karens to Tavoy).

(b). Uph tornal orange area in ♂ as *spenda* ♀: ♀ as ♂ *pavona*.

Sub-sp. **distanti** Staudinger 1889: ♂ Malacca.

B.M. 3 ♂ 4 ♀ Malaya.

(c). Uph tornal orange area in ♂ 3 mm.: in ♀ 4 mm.

Sub-sp. **pavona** De Nicéville 1895: ♂ Java. Fig De Nicéville 1897: fig as *distanti* Rhop Java, Seitz and Lep Ind.

Synonym. *niasica* Fruhstorfer 1911: ♂ Nias: type B.M.

B.M. 10 ♂ 14 ♀ Sumatra. 1 ♂ Sipora Is. 1 ♂ Batoe Is. 9 ♂ 2 ♀ Nias. 12 ♂ 7 ♀ Java. 10 ♂ 9 ♀ Borneo.

3 (2). Antennal club conspicuously white ringed before apiculus and shaft, above, centrally whitened. Uph tornal yellow area 5 mm. ♂ above bases glossed metallic blue broadly.

albicornis Elwes & Edwards 1897: ♂ Kina Balu: figured. Fig Seitz.

B.M. 4 ♂ 5 ♀ Borneo.

J.24. CYRINA Hemming 1939: type *cyrina* Hewitson: fixed by author.

Synonym. *Creteus* De Nicéville 1895: type *cyrina* Hewitson; fixed by author: homonym by Westwood 1852.

Single species. Upf and uph with white hyaline spots. Tornal cilia H broadly yellow. Unf termen narrowly yellow from dorsum to vein 3 and unh to vein 4. Antennal club yellow banded. Palpi black. Legs densely fringed and yellow at ends. ♂ upf with an obscure narrow brand along middle of vein 2.

cyrina. 2 sub-species.

(a). ♂ above, hyaline spots large and conspicuous. Unh submarginal yellow border narrow, 1 mm. ♂ F 21 mm.

Sub-sp. **cyrina** Hewitson 1876: ♀ Darjiling: type B.M. Fig Lep Ind.

Synonym. *parca* De Nicéville 1889: ♀ Bhutan: figured. *meleagrina* (Staudinger MS) Elwes & Edwards 1897 = *cyrina*.
B.M. 1 ♀ Sikkim. 1 ♀ Bhutan. 8 ♂ 1 ♀ Assam.
(b). ♂ above, hyaline spots much smaller and may be absent uph. Unh submarginal yellow border broad, 3 mm. ♂ F 23 mm.
Sub-sp. **corpa** nov: ♂ Borneo: type B.M.
B.M. 14 ♂ Borneo.

J.25. PRADA Evans, ante p. 37: type *rothschildi* Evans: fixed by author.

1 (2a). Above, bases brilliant shining blue, unmarked: head white spotted. Below, palpi and abdomen yellow, also wing bases. Unf with blue scaling at apex and end cell. Unh costal half occupied by large oval white area, blue edged: tornus with a band of blue scaling. ♂ uph with a yellow brand and tuft in cell behind origin of vein 7: unf with an oval indigo blue area in the middle of a large speculum. ♂ F 18 mm.
***rothschildi** Evans 1928: ♂ Milne Bay, New Guinea: type B.M.
B.M. 2 ♂ 1 ♀ New Guinea.

2a (1). Above, bases not blue. Uph basal half of costa pale yellow.
2 (3). Upf with a conspicuous yellow band of conjoined spots in spaces 1b, 2, 3 and lower cell spot and a yellow dash in space 6. Uph with large yellow spots in spaces 1c and 4–5. Head above yellow striped. Below purple glossed, brilliantly on H, marked as above: unf a yellow streak from base along costa: unh a large yellow area at base costa. Palpi below yellow. ♂ F 15 mm.
***papua** Evans 1928: ♂ Hydrographer Mts., New Guinea: type B.M.
B.M. 2 ♂ New Guinea.

3 (2). Above brown, upf unmarked: uph marked as *papua*: head white spotted. Unf apex purple glossed and marked with pale yellow discal and submarginal streaks and spots.

Unh silvery white, veins more or less broadly edged chocolate. Palpi yellow. ♀ F 18 mm.

rawlinsonia nov: ♀ Rawlinson Mts., Huon Gulf, New Guinea: Keysser: type B.M.

B.M. Only the type in bad condition.

J.26. TIACELLIA Evans, ante p. 37: type *tiacellia* Hewitson: fixed by author.

Single species. Above brown, unmarked except for a narrow yellowish area about base costa uph. Below indigo blue: ♂ unf plain: ♀ unf with a broad bluish white area below cell to mid dorsum and a narrow streak mid costa. Unh broad white central band occupying half the wing area, turning red at costa and broken at vein 1b. Head and scapulae indigo green. Palpi below, red. ♂ F 23 mm.

tiacellia Hewitson 1874: ♀ Aru: type B.M.: figured. Fig Seitz as *lugubris*.

B.M. 6 ♂ 2 ♀ New Guinea. 1 ♀ Aru.

K.1. THYMELICUS Hübner 1819: type *actaeon* Rottenburg: fixed by Butler 1870.

Synonyms. *Adopoea* Billberg 1820: type *sylvestris* Poda: sole species included was *linea* Schiffermüller, which is a synonym of *sylvestris*.

Pelion Kirby 1858: type action as for *Adopoea*.

1a (7a). Veins not conspicuously black, above and below.

1 (2a). Antennae with the nudum black, or dark chestnut. Palpi below "grizzly", grey with an admixture of black hairs, ochreous colouring vestigial or absent. ♂ upf with a somewhat obscure bipartite discal stigma: the upper portion not extending beyond the origin of vein 3: the lower portion consists of a short dash parallel to vein 2 and not, as usual, in continuation of the upper portion. Uncus abnormal, much shorter than the gnathos instead of being sub-equal as in other species of the genus.

lineola. 2 sub-species.

(a). Large, ♂ F 14 mm. Above rather pale tawny, with the veins between the cell and the termen conspicuously darkened: brand upf much more conspicuous than in *lineola*.

Sub-sp. **semicolon** Staudinger 1892: ♂ Lambèse. Fig Oberthür 1915, ♂ and ♀ (Nos. 2418–9).
B.M. 24 ♂ 19 ♀ Algeria. 32 ♂ 22 ♀ Morocco.
(b). ♂ F 10–14 mm. Brand upf never so conspicuous. Varies greatly with the local conditions, mountain forms being small and dark (*ludoviciae*), Sicilian forms large and pale (*majorclara*), but no satisfactory separation of other sub-species seems possible.

Sub-sp. **lineola** Ochsenheimer 1808: ♂ Germany. Fig Seitz I and many other books.
Synonyms. *virgula* Hübner 1807: ♂ ♀ Europe: figured. *ludoviciae* Mabille 1883: ♂ Auvergne: type B.M.
Varieties. *pallida* Tutt 1896. *brunnea*, *clara*, *intermedia*, *major*, *major-clara*, *suffusa* Tutt 1905. *ardens* Oberthür 1910 (type B.M.). *diluta* Graves 1925. *pseudo-thaumas* Zerny 1927. *hemmingi* Romei 1927. *melissus* Zerny 1932. *fornax* Hemming 1934. *anti-ardens* Lempke 1939. *intermedio-clara* and *-lineola*, *italamixta*, *major-nitida* Verity 1940.
B.M. 3 ♂ Gibraltar. 8 ♂ 1 ♀ Spain. 1 ♂ 2 ♀ Portugal. 18 ♂ 8 ♀ Pyrenees. 107 ♂ 31 ♀ France. 12 ♂ 12 ♀ England. 6 ♂ 5 ♀ Channel Is. 1 ♂ Denmark. 4 ♂ Esthonia. 1 ♂ 1 ♀ Sweden. 3 ♂ 1 ♀ Belgium. 27 ♂ 2 ♀ Switzerland. 20 ♂ 7 ♀ N. Italy. 17 ♂ 6 ♀ Pen Italy. 7 ♂ 5 ♀ Sicily. 24 ♂ 10 ♀ Germany. 2 ♂ 1 ♀ Poland. 12 ♂ 4 ♀ Austria. 9 ♂ 7 ♀ Czecho-Slovakia. 6 ♂ 2 ♀ Hungary. 1 ♂ 1 ♀ Jugo-Slavia. 4 ♂ 2 ♀ Balkans. 16 ♂ 6 ♀ Russia. 2 ♂ 4 ♀ Greece. 5 ♂ 1 ♀ Asia Minor. 17 ♂ 5 ♀ Syria. 7 ♂ 1 ♀ Lebanon. 7 ♂ 2 ♀ Palestine. 1 ♂ Trans-Jordan. 1 ♀ Irak. 4 ♂ 2 ♀ Persia. 8 ♂ Afghanistan (Paghman Mts.). 54 ♂ 8 ♀ Turkestan. 7 ♂ 4 ♀ Hissar Mts. 9 ♂ 6 ♀ Altai. 5 ♂ Alexander Mts. 2 ♂ Apfelgebirge. 3 ♂ Trans-Baikal. 1 ♂ Amur. 2 ♂ Michigan, Canada.

2a (1). Antennae with the nudum pink, pale brown or yellowish.
2b (5a). Antennae normal, between $\frac{1}{4}$ and $\frac{1}{3}$ length of costa and with a nudum of 9 segments, somewhat compressed.

2 (3a). Palpi "grizzly" as in *lineola.* ♂ upf brand extending well beyond the origin of vein 3 and continuous to just before vein 1. Above, uniformly tawny. Unf apex and all unh except spaces 1b and 1c, with grey or greenish scaling. The material can be divided up into rather feebly differentiated sub-species.

sylvestris. 4 sub-species.
(a). Clear pale tawny. ♂ F 14 mm.

Sub-sp. **iberica** Tutt 1905: ♂ Spain.
B.M. 4 ♂ 7 ♀ Algeria. 29 ♂ 22 ♀ Morocco. 3 ♂ 5 ♀ Portugal. 17 ♂ 10 ♀ Spain, S. of Pyrenees.
(b). Dark reddish tawny. ♂ F 14 mm.

Sub-sp. **obscura** Verity 1905: ♂ Hautes Pyrénées: type B.M.
B.M. 22 ♂ 5 ♀ Hautes Pyrénées.
(c). Intermediate between (a) and (b).

Sub-sp. **sylvestris** Poda 1761: Gratz. Fig as *thaumas* in Seitz I and in many other books.
Synonyms. *flava* Brunnich 1763. *linea* Müller 1766. *thaumas* Hufnagel 1766. *flavus* Müller 1776. *divaricatus* Geoffroy 1785. *venula* Hübner 1809: figured.
Varieties. *major*, *pallida*, *pallida-virescens*, *reversa*, *suffusa*, *suffusa-virescens* Tutt 1905. *anti-ardens* Oberthür 1910 (type B.M.: figured). *pallidiscus* Strand 1910. *late-nigra*, *late-grisea* Verity 1920. *thaumatana* Strand 1920. *macta* Verity 1926. *fulminans* Rebel & Zerny 1932. *pallida* Frohawk 1934.
B.M. 25 ♂ 11 ♀ E. Pyrenees. 106 ♂ 64 ♀ France. 15 ♂ 16 ♀ Britain. 3 ♂ Belgium. 14 ♂ 7 ♀ Switzerland. 4 ♂ 2 ♀ N. Italy. 28 ♂ 24 ♀ Pen Italy. 5 ♂ 8 ♀ Sicily. 28 ♂ 10 ♀ Germany. 1 ♂ 3 ♀ Austria. 6 ♂ 5 ♀ Hungary. 2 ♀ Poland. 1 ♂ Roumania. 1 ♂ 1 ♀ Albania. 1 ♂ Bosnia. 6 ♂ 1 ♀ Bulgaria.
(d). Large, ♂ F 14–16 mm. Clear tawny.

Sub-sp. **syriaca** Tutt 1905: ♂ Syria: type B.M.
Synonyms. *maxima* Verity 1936: ♂ Macedonia.
werneri Rebel 1937: ♀ Greece.
B.M. 6 ♂ 2 ♀ Sarepta, S. Russia. 20 ♂ 10 ♀ Greece. 1 ♀ Corfu. 40 ♂ 15 ♀ Turkey. 29 ♂ 7 ♀ Asia Minor. 28 ♂ 11 ♀ Syria. 2 ♂ 2 ♀ Lebanon. 4 ♂ 1 ♀ Palestine.

3a (2). Palpi below, basal half white, outer half orange, very slight admixture of black hairs. ♂ upf with stigma.

3 (4). Above tawny, not shaded brown and without any trace of paler discal markings. Tips of cuiller and valva of clasp widely separated.

hamza. 4 sub-species.

(a). ♂ F 13 mm. Unh with greenish scaling as in *sylvestris*. ♂ stigma broad and continuous, as in *sylvestris*.

Sub-sp. **hamza** Oberthür 1876: ♂ Oran: type B.M.: figured. Fig Oberthür 1915; Seitz I (very badly).

B.M. 17 ♂ 4 ♀ Morocco. 56 ♂ 44 ♀ Algeria. 1 ♂ Tunis.

(b). Smaller, ♂ F 11 mm. Lighter and cilia whiter.

Sub-sp. **novissima** Turati 1921: ♂ Cyrenaica.

B.M. 3 ♂ 3 ♀ Cyrenaica.

(c). ♂ F 14 mm. Like *hamza*, but unh tawny and stigma narrower, continuous.

Sub-sp. **nova** Reverdin 1916: ♂ Amasia: figured.

B.M. 1 ♂ Syria, Shar Deresy.

(d). Above borders darkened: below tawny. ♂ stigma slender and divided into 3 branches, upper between veins 2 and 3, followed by an upper and a lower segment in space 1b. ♂ F 13½ mm.

Sub-sp. **alaica** Filipjev 1931: Pamirs.

Synonym. ? *pfeifferi* Bytinski-Salz 1937: ♂ Elburz Mts., Iran.

B.M. 1 ♂ Pskem Valley, Turkestan, 3,000 ft.

4 (3). Above shaded with brown leaving a more or less conspicuous chain of discal spots, always present on upf in ♀. ♂ upf stigma continuous as in *sylvestris*. Cuiller and valva of clasp overlapping or contiguous.

actaeon. 4 sub-species.

(a). Small, ♂ F 12 mm., and brightly variegated. Above, discal spots F and H and cell F tawny, sharply marked in ♀ on the dark brown ground. Below, overlaid greenish scaling on H and at apex F, discal spots faint in ♂, nearly white and sharply defined in ♀.

Sub-sp. **christi** Rebel 1894: Canaries: figured. Fig Seitz I.

B.M. 38 ♂ 9 ♀ Canary Is.

(b). ♂ F 13 mm. Intermediate between *christi* and *actaeon*, differing principally from the latter in that the yellow band uph in the ♀ is almost invariably well marked, whereas in *actaeon* such specimens are occasional varieties (*distincta*).

Sub-sp. **orana** nov: ♀ Algeria: type B.M.: fig Oberthür 1915, pl. 295, fig 2425. Fig Oberthür 1915, ♂ and ♀.
B.M. 19 ♂ 19 ♀ Morocco. 44 ♂ 21 ♀ Algeria. 3 ♂ 1 ♀ Tunis.
(c). ♂ F 13 mm. Upf ♂ with the yellow spotting upf faint or absent: well marked in ♀, but usually absent unf.

Sub-sp. **actaeon** Rottemburg 1775: ? Germany. Fig Seitz I and many other books.
Synonyms. Varieties. *clara*, *distincta*, *extensa*, *obsoleta*, *virescens* Tutt 1905. *ragusai* Verity 1919. *aurescens* and *pulchracteon* Verity 1940.
B.M. 20 ♂ 8 ♀ Spain. 4 ♂ 4 ♀ Portugal. 45 ♂ 38 ♀ France. 14 ♂ 14 ♀ Britain. 57 ♂ 24 ♀ Italy. 11 ♂ 10 ♀ Sicily. 1 ♂ 2 ♀ Switzerland. 1 ♀ Poland. 13 ♂ 10 ♀ Germany. 3 ♂ Czecho-Slovakia. 1 ♂ Hungary. 2 ♂ 1 ♀ Bulgaria. 3 ♂ 1 ♀ Jugo-Slavia. 7 ♂ 1 ♀ Albania. 19 ♂ 4 ♀ Greece. 1 ♂ 3 ♀ Corfu. 12 ♂ 7 ♀ Turkey. 3 ♂ 1 ♀ Asia Minor. 1 ♂ Irak, N. Kurdistan.
(d). Larger, ♂ F 14 mm., and much tawnier, due to reduction of brown shading: yellow discal spots usually absent in ♂ and vestigial in ♀. Upf veins never darkened before termen, as in *nova* which flies with it.

Sub-sp. **heydeni** Plötz 1884: ? loc. (Syria).
Synonyms. *clara-obsoleta* Tutt 1920: Cyprus.
phoenix Graves 1925: ♂ Syria: type B.M.: figured.
B.M. 6 ♂ 6 ♀ Syria. 7 ♂ 3 ♀ Lebanon. 3 ♂ 4 ♀ Palestine. 20 ♂ 12 ♀ Cyprus.

5a (2b). Antennae abnormal, as indicated below.

5 (6). Antennae very short, $\frac{1}{3}$ costa, nudum much compressed, with 8 segments. ♂ upf brand short, broken at vein 2, not extending beyond origin vein 3, nor to vein 1. ♂ F 16 mm., elongate. Above, dull tawny: below, apex F and all H pale greenish, disc F orange: no yellow discal spots. Division between uncus and gnathos short: tip of cuiller broad.

hyrax Lederer 1861: ♂ Antioch: figured.
B.M. 12 ♂ 1 ♀ Asia Minor. 3 ♂ Syria. 1 ♂ Palestine. 1 ♂ Armenia.

6 (5). Antennae long = ½ costa: nudum long, 12 segments, not compressed except at tip. ♂ upf no stigma. ♂ ♀ marked very much as in ♀ *actaeon*, but upf there is a well-marked dark bar defining the end of the cell. ♂ F 11 mm., rounded.

stigma Staudinger 1886: Samarkand Mts. Fig Seitz I.
B.M. 7 ♂ 8 ♀ Samarkand.

7a (1a). Veins conspicuously black, above and below.
7 (8). ♂ upf with a thin discal stigma continuous from vein 1 to beyond origin of vein 3. ♀ upf yellow discal streak in space 4 very much shorter than the streak in space 3. Larger, ♂ F 15 mm.

leonina. 2 sub-species.
(a). ♂ above, dark border narrow; no dark bar at end cell F: tawny colouring extending to base on H. Unh uniformly tawny in ♂, sometimes with a little dark shading in ♀.

Sub-sp. **leonina** Butler 1878: ♂ Japan: type B.M. Fig Leech 1894, ♂ and ♀ Japan; Seitz I.
B.M. 35 ♂ 19 ♀ Japan. 4 ♂ 1 ♀ Amur. 4 ♂ Corea. 1 ♂ Che-Kiang. 6 ♂ Kwan Shien. 1 ♂ Wa Shan. 2 ♂ Cheng Tu. 2 ♂ Chia Kou Ho.
(b). ♂ above, dark borders broad; a dark patch at end cell F: base to mid disc H brown. ♀ above, darker and tawny markings narrower: unh remarkably different, powdered with black scaling, leaving a broad pale yellow discal band.

Sub-sp. **tatsia** nov: ♂ Ta Tsien Lou: type B.M.: fig Leech 1894 as *leonina* from W. China.
B.M. 9 ♂ 9 ♀ Ta Tsien Lou. 1 ♂ 1 ♀ Lo-Tse-Kiang. 3 ♀ Yunnan.

8 (7). ♂ upf without a stigma. ♀ upf, yellow discal streak in space 4 as long as or longer than the streak in space 3. Generally smaller, ♂ F 14 mm.

sylvatica. 5 sub-species.

(a). Typically ♂ ♀ alike with broad brown borders and bases, leaving a broad discal area with more or less well-defined edges. Upf discal band may or may not enter space 1b: streak in space 2 overlaps the cell spot: streak in space 4 longer than streak in space 3: streaks in spaces 5 to 10 sub-equal and on a regular curve.

Sub-sp. **sylvatica** Bremer 1861: Amur: figured. Fig Leech 1894 from Japan; Seitz I, ♂ an extreme form approaching *astigmata*, ♀ normal.

B.M. 40 ♂ 27 ♀ Japan. 4 ♂ 5 ♀ Askold. 6 ♂ 4 ♀ Amur. 2 ♂ 3 ♀ Korea. 1 ♂ Manchuria. 1 ♀ Shensi.

(b). Upf tawny area extended to apex, costa and base cell, leaving only the tornus and base below cell brown. Probably a seasonal form of *sylvatica*: 1 ♂ from Japan is identical and others show an approach thereto.

Sub-sp. **astigmata** Leech 1894: ♂ Chang Yang: type B.M.: figured. Fig Seitz I.

B.M. 1 ♂ S. Shensi. 3 ♂ 1 ♀ Hupeh (Chang Yang, Ichang).

(c). Very much darker: ground colour black rather than brown: discal markings very narrow and sharply defined. Upf streak in space 4 longer than the streak in space 3: streaks in spaces 5 to 8 sub-equal and in a straight line, streak in space 9 reduced to a dot.

Sub-sp. **tenebrosa** Leech 1894: ♂ Kiu Kiang: type B.M.: figured. Fig Seitz I.

B.M. 18 ♂ 7 ♀ Kiang Si (Kiu Kiang). 2 ♂ Chekiang. 1 ♂ Hunan. 2 ♂ 1 ♀ Fukien.

(d). ♂ above, like *sylvatica*, but discal band with sharply defined edges: in ♀ band upf very narrow and regular. Upf spots in spaces 1b to 4 equal and in a straight line in ♀: in ♂, streak in space 2 overlaps the cell spot: at the apex there is dot in space 5, a row of equal streaks in spaces 6 to 8, a dot or nothing in space 9 and a long streak in space 10.

Sub-sp. **occidentalis** Leech 1894: ♀ Chia Kou Ho: type B.M.: figured.

B.M. 2 ♂ 3 ♀ Chia Kou Ho. 1 ♂ Ta Tsien Lou.

(e). A form corresponding to *occidentalis* as *astigmata* does to *sylvatica* and almost certainly a seasonal form of *occidentalis*. The tawny colouring is extended as in *astigmata*, but the brown shaded border reaches the apex upf, where the apical spotting is arranged as in *occidentalis*.

Sub-sp. **nervulata** Mabille 1876: ♂ Thibet: type B.M. Fig Leech 1894; Seitz I.

B.M. 1 ♂ Wa Ssu Kow. 10 ♂ Moupin. 1 ♂ Ta Tsien Lou 1 ♀ "Venchuan and Traku, W. Szechwan".

K.2. HESPERIA Fabricius 1793: type *comma* Linnaeus: fixed by Dalman 1816.

Synonyms. *Pamphila* Fabricius 1807: type *comma* Linnaeus: fixed by Westwood 1840.

Symmachia Sedovskii 1837: to replace *Hesperia*: in error.

Ocytes Scudder 1872: type *metea* Scudder: fixed by author.

Anthomaster Scudder 1872: type *leonardus* Harris: fixed by author.

Single species in the old world. ♂ F 13–15 mm.

comma. 5 sub-species, in the old world.

(a). Unh greenish brown with conspicuous white veins and with more or less conjoined white spots. Clasp with the inner face of the cuiller below the protruding spine vertical instead of inclined as in all other sub-species.

Sub-sp. **benuncas** Oberthür 1912: ♂ Lambèse: type B.M. Fig Oberthür 1913 and 1915: genitalia by Reverdin 1917. B.M. 16 ♂ 16 ♀ Morocco. 33 ♂ 33 ♀ Algeria.

(b). Throughout Europe to Persia and the Amur there appears to be only one real sub-species varying from a small dark form (*catena*) in Lapland, the high Alps and Siberian mountains to a very pale form (*pallida*) prevalent in Syria and to be found in Central Asia and elsewhere. The individual variation is very great as may be seen from the long list of names that have been assigned. Reverdin 1917 considered that the Asiatic form had rather different genitalia, but the difference seems to be individual rather than geographical.

Sub-sp. **comma** Linnaeus 1758: ♂ Sweden: type in coll Linnean Society London. Fig Seitz and many books: Reverdin 1917 with figs of genitalia.

Synonyms. *catena* Staudinger 1861: Lapland. *mixta* Alphéraky 1881: Thian Shan. *lato* Groum Grshmaïlo 1891: Dschaker Mts.

Varieties. *alpina* Bath 1896. *flava* Tutt 1896. *pallida* Staudinger 1901: Syria. *centripuncta*, *clara*, *conflua*, *extrema*, *intermedia*, *juncta*, *pallido-puncta*, *suffusa* Tutt 1905. *albescens*, *dupuyi*, *faunula* (= *juncta* Tutt), *guernisaci* (= *centripuncta* Tutt) Oberthür 1910: all figured. *apennina*, *mixto-apennina* Rostagno 1911. *immaculata* Fernandez 1918. *aurata*, *orae* Verity 1924. *alpapennina*, *alpium-flava*, *atralpina*, *galliae-meridei*, *hibera*, *macrocoma*, *super-alpina* Verity 1928. *suffusa* Nordman 1939. *hemipallida* Verity 1940.

B.M. 7 ♂ 2 ♀ Portugal. 21 ♂ 16 ♀ Spain. 144 ♂ 124 ♀ France. 26 ♂ 28 ♀ Britain. 26 ♂ 28 ♀ Scandinavia. 36 ♂ 38 ♀ Switzerland. 64 ♂ 35 ♀ Italy. 12 ♂ 11 ♀ Germany. 1 ♂ 4 ♀ Poland. 2 ♀ Czecho-Slovakia. 14 ♂ 12 ♀ Austria. 2 ♂ 8 ♀ Hungary. 1 ♀ Jugo-Slavia. 1 ♂ 2 ♀ Greece. 1 ♂ 1 ♀ S.W. Russia. 2 ♂ 1 ♀ S.E. Russia (Sarepta). 23 ♂ 5 ♀ Asia Minor. 9 ♂ 5 ♀ Syria. 1 ♂ N. Persia. 1 ♂ 1 ♀ Sarafshan. 5 ♂ 2 ♀ Trans-Alai. 9 ♂ 11 ♀ Naryn. 1 ♂ 1 ♀ Tekkes. 2 ♂ 2 ♀ Kuran Tag. 1 ♀ Osch. 5 ♂ 2 ♀ Amdo, N. Thibet. 1 ♂ 1 ♀ Urga. 1 ♂ Jagnob, Turkestan. 9 ♂ 4 ♀ Altai. 1 ♂ Chingan Mts. 2 ♂ 2 ♀ E. Sajan. 3 ♂ Irkutsk. 2 ♀ Apfelgebirge. 2 ♂ 3 ♀ Mongolia. 2 ♂ Amur.

(c). In Chitral and the Himalayas the top of the cuiller is always serrate, instead of smooth or crenulate. Chitral specimens are much redder than *comma* from elsewhere both above and unf. Unh greenish brown, dorsum broadly orange, white spots large and contiguous: cilia pure white, without any trace of the usual black dot at the end of each vein.

Sub-sp. **shandura** nov: ♂ Shandur Pass, Chitral: type B.M. ♂ ♀ fig Lep Ind as *dimila*.

Synonym. *mixta-conflua* Tutt 1905: ♀ Chitral: type B.M. The two parts of the name are homonyms.

B.M. 35 ♂ 12 ♀ Chitral. 5 ♂ 1 ♀ Haitar Nallah, Gilgit and Rupal, Astor.

(d). Above as *comma*. Unh the tawny dorsal colouring extends along the wing between the discal spots and the termen and is crossed by black veins: in an extreme form from Batang, E. Thibet, the entire underside is tawny and black-veined.

Sub-sp. **dimila** Moore 1874: ♂ Runang Pass, Busahir. Fig De Nicéville ♀ 1892, ♂ 1894; Leech 1894 (from Ta Tsien Lou): fig Lep Ind is *shandura*.

Synonym. *indica-fusca* Verity 1931: ♂ Busahir.

B.M. 6 ♂ 2 ♀ Ladak. 1 ♂ Lahoul. 15 ♂ 2 ♀ Garhwal (Nilang Pass). 2 ♂ Ta Tsien Lou. 1 ♂ Batang, S.E. Thibet.

(e). End of clasp prolonged and domed. Unh entirely dull dark yellow with the white spots faint or absent. Cilia F and H unchequered.

Sub-sp. **florinda** Butler 1878: ♂ Japan: type B.M. Fig Leech 1895.

Synonyms. *repugnans* Staudinger 1892: ♂ Sutschan, Amur. *mikado* (Mabille MS) Leech 1895 = *florinda*.

? *sachalinensis* Matsumura 1934: ♂ Saghalien: figured. May be referable to sub-sp. *comma*.

B.M. 4 ♂ 1 ♀ Amur. 4 ♂ Chita, Trans-Baikal. 1 ♂ 1 ♀ Korea. 2 ♂ 2 ♀ Pechili. 1 ♂ Shan Tung. 1 ♂ Shan Si. 29 ♂ 20 ♀ Japan.

K.3. OCHLODES Scudder 1872: type *nemorum* Boisduval: fixed by author. *Augiades* has been used for this genus incorrectly: the name relates to the American fauna.

1a (4a). Upf ♂ ♀ discal band continued across space 1b.

1 (2a). Upf spots in spaces 4 and 5 always present and, except very rarely, completely detached from the lower discal spots in spaces 1b to 3 and the apical spots in spaces 6 to 8. Without hyaline markings and spots unh ochreous.

venata. 5 sub-species.

(a). Clasp with the cuiller sharply angled at back and completely covering the end of the valva. Above, markings tawny rather than yellow and shaded borders and bases varying from medium brown to merging with the tawny area, and the discal spots consequently varying from being sharply defined to being completely absent. ♂ F 15 to 17 mm.

Sub-sp. **faunus** Turati 1905: ♂ Italy–S. France: figured. Fig in many books as *sylvanus*.

Synonyms. *sylvanus* Esper 1775 and *melicerta* Bergstrasser 1780: both homonyms by Drury 1773.

Varieties. *clara*, *extensa*, *norvegica*, *obsoleta*, *opposita*, *paupera* Tutt 1905. *alpina* Hoffman 1914. *nigra* Closs 1914. *sylvanellus* Turati 1914. *septentrionalis* Verity 1919. *infra-flava*, *infra-nigricans*, *infra-ochracea*, *minuta* Verity 1920. *taurica* Gaede 1931. *alexandra* Hemming 1934. *esperi* Verity 1934. *infra-viridis* Verity 1940.

B.M. 6 ♂ 3 ♀ Spain. 130 ♂ 83 ♀ France. 5 ♂ 5 ♀ Jersey. 17 ♂ 16 ♀ Britain. 5 ♂ 5 ♀ Belgium. 1 ♂ 1 ♀ Denmark. 2 ♂ 2 ♀ Norway. 6 ♂ 2 ♀ Sweden. 5 ♂ 2 ♀ Esthonia. 1 ♂ 1 ♀ W. Russia (St. Petersburg). 16 ♂ 6 ♀ Switzerland. 47 ♂ 38 ♀ Italy. 8 ♂ 4 ♀ Sicily. 15 ♂ 5 ♀ Germany. 26 ♂ 12 ♀ Austria. 9 ♂ 7 ♀ Hungary. 1 ♂ Bosnia. 2 ♂ 2 ♀ Jugo-Slavia. 1 ♂ Albania. 51 ♂ 19 ♀ Greece and Turkey. 3 ♂ 3 ♀ S.W. Russia (Podolia). 1 ♂ 1 ♀ S.E. Russia (Sarepta). 12 ♂ 6 ♀ Asia Minor. 7 ♂ 6 ♀ Syria. 10 ♂ Turkestan (Thian Shan; Naryn Riv.; Tashkent; Alexander Chain).

(b). In the Elburz Mts. neighbourhood the dark borders are narrow and darker, sometimes nearly black: the tawny discal band upf is broader than the dark border. Unh generally shaded brown except for the orange tornal and the discal spots, which are unusually large. ♂ F 17 mm.

Sub-sp. **hyrcana** Christoph 1893: ♂ Lenkoran, Astrabad: type B.M.

B.M. 7 ♂ 4 ♀ N. Persia.

(c). From Turkestan to the Amur and W. China *faunus* extends in a somewhat modified smaller form to where it meets the genitalically different sub-species, *venata* in N. China and *sagitta* in S.W. China. The ochreous areas are yellow rather than tawny, particularly in the ♀, and the dark areas vary from pale brown to nearly black: the discal spots are well defined: unh shaded greenish to dark brown and the dark veins better marked than in *faunus*. Smaller, ♂ F 14 to 17 mm.

Sub-sp. **similis** Leech 1894: ♂ Mupin: type B.M.: figured. Fig Seitz. The figures indicate the darkest extreme.

8 ♂ 5 ♀ Amdo, N. Thibet. 2 ♂ 2 ♀ Altai. 2 ♂ 1 ♀ Chingan Mts. 3 ♂ 2 ♀ Apfelgebirge. 1 ♂ 1 ♀ Kentei Mts. 4 ♂ 2 ♀ Amur. 4 ♂ 2 ♀ N. of Vladivostock. 1 ♂ Manchuria. 1 ♂ 2 ♀ Kalgan, N. China. 1 ♂ Shantung. 5 ♂ 5 ♀ Shan Si. 1 ♂ Hupeh (Chang Yang). 3 ♂ 1 ♀ W. Szechwan (Mupun: Pa Tse Fang).

(d). Clasp with the cuiller rounded at the back and the pointed valva projecting beyond the end of the cuiller. Large, ♂ F 17 to 18 mm., varying from being entirely yellowish-tawny above to brown bases and borders (*majuscula*): veins black. The antennal apiculus is longer due to the 8 segments not being compressed at all: in *faunus* the compression at the tip makes the apiculus appear to consist of only 6 segments.

Sub-sp. **venata** Bremer & Grey 1853: ♂ Near Pekin. Fig Ménétriés 1865; Seitz I as *venata* and as *majuscula*.

Synonyms. *selas* Mabille 1878: ♂ "E. Thibet": type B.M.

herculea Butler 1881: ♂ Japan: type B.M.

tochrana Ruhl 1895: ♂ Japan.

majuscula Elwes & Edwards 1897: ♂ Shanghai: type B.M.: figured.

amurensis Mabille 1909: type B.M.

chosensis Matsumura: 1929: ♂ Korea.

B.M. 37 ♂ 28 ♀ Japan. 17 ♂ 9 ♀ Askold. 5 ♂ 3 ♀ Amur. 21 ♂ 4 ♀ Korea. 2 ♂ 1 ♀ Manchuria. 2 ♂ 1 ♀ N. of Vladivostok. 1 ♂ 2 ♀ Pekin. 3 ♂ Shanghai. 1 ♂ Chekiang. 3 ♂ Shen Si. 1 ♂ Shansi. 6 ♂ 2 ♀ Hupeh (Chang Yang).

(e). Small, ♂ F 15 mm. Dark brown with comparatively narrow ochreous markings. Unh greenish, dark veins faint or absent. Clasp as in *venata*. Difficult to separate from dark forms of *similis*, except by an examination of the clasp.

Sub-sp. **sagitta** Hemming 1934: to replace *sylvanoides*, a homonym by Boisduval 1832.

Synonym. *sylvanoides* Leech 1894: ♂ Ta Tsien Lou: type B.M.: figured. Fig Seitz I.

B.M. 4 ♂ Fort Naryn. 3 ♂ 1 ♀ Thibet, Qua Se. 9 ♂ Tchang Kou, 7 ♂ 5 ♀ Siao Lou. 4 ♂ 3 ♀ Wa Ssu Kow, 3 ♂ Tay Tou Ho, 1 ♀ Chia Kou Ho, 55 ♂ 36 ♀ Ta Tsien

Lou, 5 ♂ 1 ♀ Wali, all W. Szechwan. 4 ♂ Yunnan. 2 ♂ Hupeh (Chang Yang), where it meets *venata* and *similis*.

2a (1). Upf spots in spaces 4 and 5 absent or conjoined to the spots on either side. Unh markings yellow.
2 (3). Upf markings opaque: spots in spaces 4 and 5 usually present. Unh dark veins conspicuous. ♂ F 16mm.
ochracea Bremer 1861: ♂ Amur. Fig Seitz I.
Synonyms. *rikuchina* Butler 1878: ♀ Japan: type B.M.
ampittiformis Matsumura 1919: ♀ Japan: aberration.
B.M. 36 ♂ 21 ♀ Japan. 15 ♂ 3 ♀ Amur. 4 ♂ 3 ♀ Askold. 1 ♂ Manchuria. 1 ♂ Chingan Mts.

3 (2) Upf markings in cell, spaces 2, 3, 6 to 8 hyaline more or less: often a dot in space 4, rarely any spot in space 5. Unh greenish, veins not darkened. ♂ F 17 mm.
linga Evans 1939: ♂ Centr. China: type B.M.
B.M. 14 ♂ 4 ♀ Shen Si. 6 ♂ 7 ♀ Shan Si. 4 ♂ Chekiang. 1 ♂ Central China. 1 ♂ marked "*masoni*, Ataran Valley".

4a (1a). Upf ♂ ♀ discal band not continuous across space 1b, where there is usually a large spot against vein 1, which may occasionally be connected to the spot in space 2 by a slender streak. Upf usually no spots in spaces 4 and 5.
4 (5a). Uph unmarked: unh plain ochreous or with a more or less developed row of small black discal spots. ♂ F 16 mm.
lanta Evans 1939: ♂ Lou Tse Kiang: type B.M.
B.M. 5 ♂ Lou Tse Kiang. 5 ♂ Tse Kou. 2 ♂ Li-kiang, 1 ♀ Bahand, Yunnan.

5a (4). Uph always with 3 or 4 discal spots.
5b (10a). Uph the discal spots as opaque as the opaque spot in space 1b upf, not hyaline or subhyaline as are usually the other spots upf.
5c (8a). Unh the discal spots yellow.
5 (6a). Unf with a conspicuous yellow tornal area, extending to the termen and unh dark ochreous brown contrasting strongly with the yellow discal spots. Upf spots yellow and completely opaque in ♂: in ♀ white and hyaline, except for the yellow spot in space 1b. ♂ F 19mm.

flavomaculata Draeseke 1905: ♂ Szechwan. ♀ fig Leech 1894 and Seitz I as *bouddha* ♀.
B.M. 45 ♂ 2 ♀ W. Szechwan (Ta Tsien Lou, Moupin, etc.).

6a (5). Unf without a conspicuous tornal pale area, beyond the slight enlargement of the spot in space 1b from upf. Unh greenish yellow not contrasting strongly with the yellow discal spots. ♂ ♀ F spots hyaline or semi-hyaline. Uph generally with a spot in spaces 4 to 5 in addition to those in spaces 2, 3 and 6.
6 (7). Tip of cuiller of clasp blunt or forked, but without an elongate spine.

subhyalina. 3 sub-species.
(a). The typical form flies with *thibetana* and is difficult to separate therefrom without examining the clasp. Larger, ♂ F 17–19 mm. ♂ upf more often with spots in spaces 4 and 5: spot in space 2 triangular, lower edge being prolonged basad: unh veins more or less darkened. ♀ upf cell spots usually separate and overlapped by the spot in space 2.

Sub-sp. **subhyalina** Bremer & Grey 1853: ♂ Near Pekin. Fig Leech 1894 and Seitz I: Lep Ind figures are of *pasca* Synonym. *vivax* Bryk 1946: Korea.
B.M. 2 ♂ 1 ♀ Amur. 1 ♂ 1 ♀ Mongolia. 1 ♂ Manchuria. 1 ♂ 1 ♀ Japan. 6 ♂ 7 ♀ Korea. 5 ♂ 1 ♀ Shan Si. 3 ♂ 3 ♀ Chekiang. 2 ♂ Kiang Su. 1 ♀ Honan. 2 ♂ 4 ♀ Chili. 32 ♂ 7 ♀ Hupeh. 1 ♂ 1 ♀ Kwan Shien. 4 ♂ 4 ♀ Leon Fang. 93 ♂ 21 ♀ W. Szechwan (Ta Tsien Lou, Mupin, etc.). 1 ♀ Myitkina, N. Burma.
(b). Smaller, ♂ F 15 mm. Inner tip of valva pointed instead of rounded. Wings more rounded. Unf spot in space 1b smaller and much more sharply defined. Unh veins not darkened.

Sub-sp. **pasca** nov: ♂ Khasi Hills: type B.M. Fig Lep Ind as *subhyalina*.
B.M. 1 ♂ 1 ♀ Sikkim. 13 ♂ 3 ♀ Assam, Khasi Hills.
(c). Very much darkened form. Above, dark brown with small spots. Unh dark brown with dark ochreous scaling. ♂ F 17 mm.

Sub-sp. **formosana** Matsumura 1919: ♀ Formosa.
B.M. 1 ♂ Formosa.

7 (6). Tip of cuiller of clasp furnished with a very long lower spine.

thibetana. 2 sub-species.

(a). Smaller than *subhyalina*, ♂ F 16–17 mm. ♂ upf spot in space 2 rectangular, lower edge not produced basad: unh greener and veins not darkened. ♀ upf cell spots usually conjoined and not overlapped by the spot in space 2. Wings more rounded.

Sub-sp. **thibetana** Oberthür 1886: ♀ Ta Tsien Lou: type B.M.: figured.

Synonym. *gautamae* Bryk 1946: Korea.

B.M. 4 ♂ Korea. 2 ♂ 1 ♀ Hupeh. 4 ♂ 2 ♀ Naryn Riv. 8 ♂ 4 ♀ Thibet (Batang, Qua Se). 122 ♂ 51 ♀ W. Szechwan (Ta Tsien Lou, Moupin, etc.). 61 ♂ 29 ♀ Yunnan (Likiang, Tali, Bahand, Tse Kou).

(b). Very much darker. Above dark brown with small spots. Unh dark green with small yellow spots. ♂ F 17 mm.

Sub-sp. **sanka** nov: ♂ Htawgaw, N. Burma: 10,000 feet: type B.M.

B.M. 1 ♂ 1 ♀ type loc.

8a (5c). Unh the 3 discal spots shining white: yellow on uph.

8 (9). ♂ upf discal stigma grey. ♀ upf spots in space 2 and cell completely overlapping. ♂ F 21 mm.

crataeis Leech 1894: ♂ Omeishan: type B.M.: figured. Fig Seitz ♂ and ♀.

B.M. 23 ♂ 6 ♀ Omeishan. 1 ♂ Wa Ssu Kow. 1 ♀ Chia Kou Ho. 2 ♂ Moupin. 1 ♂ S. Szechwan, China.

9 (8). ♂ upf discal stigma black. ♀ upf spots in space 2 and cell not overlapping at all.

siva. 4 sub-species.

(a). End of cuiller narrower than end of valva. Apex F rounded. Uph no cell spot. Unf spot in space 1b widely diffused. ♂ F 15 mm.

Sub-sp. **tarsa** nov: ♂ Pochu Valley, S.E. Thibet: F. M. Bailey: type B.M.
B.M. 3 ♂ type loc.
(b). End of cuiller as wide or wider than end of valva. Apex F produced, as usual. Upf usually with cell spot. ♂ F 16 mm.

Sub-sp. **siva** Moore 1878: ♂ Khasi Hills: type B.M. Fig Lep Ind.
B.M. 1 ♂ Mussoorie. 3 ♂ Sikkim. 27 ♂ 11 ♀ Assam. 12 ♂ Sadon, N. Burma. 4 ♂ N. Shan St.
(c). Aedeagus with a long thin lower process as well as the usual long upper process. End of clasp as in *siva*, but the tip of the cuiller is forked. Larger, ♂ F 18 mm., and brighter.

Sub-sp. **karennia** Evans 1932: ♂ Karen Hills: type B.M.
B.M. 2 ♂ Bhamo. 16 ♂ 14 ♀ S. Shan St. 17 ♂ 5 ♀ Karen Hills. 7 ♂ 1 ♀ Siam.
(d). Large and dark, ♂ F 22 mm., with much smaller markings. This may relate to *crataeis*: description in Japanese.

Sub-sp. **niitakana** Sonan 1936: ♂ Formosa: ♂ ♀ figured.
B.M. None.

10a (5b). Uph the discal spots as hyaline as the discal spots upf: not nearly opaque as the spot in space 1b upf.
10b (12). Upf single large cell spot. Markings more or less ochreous and the wings above shaded ochreous as in all preceding species.
10 (11). ♂ upf stigma black. Unh spots sharply marked. ♂ F 17 mm.

bouddha Mabille 1876: ♂ Moupin: type B.M. ♂ Fig Leech 1894 and Seitz: their ♀ figures are of *flavofasciata* ♀. Fig Elwes & Edwards 1897 as *siva*.
Synonym. *consors* Leech 1894: ♀ Moupin: type B.M.: figured. Fig Seitz I.
B.M. 1 ♂ 1 ♀ Moupin. 2 ♂ W. Szechwan. 8 ♂ 2 ♀ N. Burma (Bernardmyo, Kambaiti).

11 (10). ♂ upf stigma grey. Unh spots faint. ♂ F 16 mm.

brahma Moore 1878: ♂ Mussoorie: type B.M. Fig Lep Ind.

Synonym. *rama* Evans 1932: ♂ Sikkim: type B.M.
B.M. 1 ♂ Simla. 14 ♂ 2 ♀ Mussoorie. 1 ♂ Kumaon. 2 ♂ Nepal. 11 ♂ Sikkim. 2 ♂ Assam. 4 ♂ Chin Hills. 2 ♂ Dawnas, Burma.

12 (10b). Upf cell spot divided and in ♂ lower spot produced basad: in ♀ overlapped by spot in space 2. Above dark brown and all markings white, except for a yellowish dot in space 1b upf. ♂ upf stigma grey. Unh greenish with dark veins. ♂ F 21 mm.
klapperichii Evans 1940: ♂ Kuatun, Fukien.
B.M. 2 ♂ 1 ♀ type loc. (co-types).

L.1. TARACTROCERA Butler 1870: type *maevius* Fabricius: fixed by author.
Synonym. *Bibla* Mabille 1904: type *papyria* Boisduval: sole species included.

1a (10a). End of antennal club rounded. ♂ upf no brand or stigma.
1b (4a). Above, markings white or nearly so.
1c (3). Upf spots in spaces 4 and 5 widely detached, placed midway between termen and band.
1 (2). Unh veins concolorous with ground and with a broad white streak in space 1c from base to termen. ♂ F 12 mm.
danna Moore 1865: ♀ Simla: type B.M.: figured. Fig Lep Ind.
B.M. 32 ♂ 26 ♀ N.W. Himalayas (Kashmir to Kumaon). 3 ♂ 1 ♀ Rongshar Valley, S. Thibet. 1 ♀ Sikkim, Chumbi Valley. 5 ♂ 3 ♀ Bhutan.

2 (1). Unh veins paler than ground: white streak in space 1c inconspicuous or absent. ♂ F 10–11 mm.
maevius. 2 sub-species.
(a). Unh ochreous brown: veins pale brown.
Sub-sp. **maevius** Fabricius 1793: "India" (Butler 1870, Ceylon). Fig Butler 1870; Lep Ceylon; Lep Ind, pl. 784/1 and 1b, ♂.

Synonym. *flaccus* Fabricius 1793: "E. Indies" (Butler 1869, Ceylon).

B.M. 36 ♂ 25 ♀ Ceylon.

(b). Unh greyer: veins white.

Sub-sp. **sagara** Moore 1865: ♀ Darjiling: type B.M. Fig Lep Ind, pl. 784/1a, ♀ and Bell 1920, ♂ ♀.

Synonym. *lineata* Druce 1874: ♀ Siam: type B.M.: figured.

B.M. 35 ♂ 15 ♀ S. India. 6 ♂ 3 ♀ C. India. 8 ♂ 10 ♀ N.W. India (Peshawar, Kulu, etc.). 16 ♂ 11 ♀ Bengal. 2 ♂ 4 ♀ Sikkim. 3 ♂ 3 ♀ Assam. 24 ♂ 13 ♀ Burma (Shan St. to Ataran). 2 ♂ 2 ♀ Siam.

3 (1c). Upf spots in spaces 4 and 5 conjoined to the band or at least nearer thereto than to the termen. Unh veins darkened before termen.

ardonia. 2 sub-species.

(a). Markings broader and yellower. ♂ F 13 mm.

Sub-sp. **sumatrensis** (Plötz MS) Evans 1926: ♂ Borneo: type B.M.

Synonyms. *lamia* Evans 1934: ♂ Borneo: type as for *sumatrensis*, which name must be regarded as valid.

B.M. 1 ♂ Malaya. 47 ♂ 14 ♀ Borneo.

(b). Markings narrower and whiter. ♂ F 11 mm.

Sub-sp. **ardonia** Hewitson 1868: ♂ Macassar: type B.M.

Synonym. *sangira* Plötz 1885: ♂ Sangir.

B.M. 24 ♂ 18 ♀ Celebes. 1 ♂ Saleyer.

4a (1b). Above markings tawny.

4b (8a). Uph or unh discal band continued into space 7.

4c (7). Uph the discal spot in spaces 4 to 5 shifted out of line, nearer termen, from those in space 1c or 2 to space 3: veins between the discal markings not darkened.

4 (5a). Upf spots in spaces 4 and 5 usually remote from the lower discal and the apical spots; if approximate, they are nearer to, or even conjoined with, the apical spots, but always separate or farther from the lower discal spots.

ceramas. 6 sub-species.

(a). The darkest form. Above typically with 3 widely separated tawny dots upf and 2 uph. ♂ F 12 mm.

Sub-sp. **ceramas** Hewitson 1868: ♂ Nilgiris: type B.M. Fig Elwes & Edwards 1897; Seitz; Lep Ind.

Synonyms. *lynx* Möschler 1878: "Silhet" (probably Nilgiris).

silhetica Evans 1912 MS: *ceramas*.

B.M. 11 ♂ 11 ♀ Travancore. 8 ♂ 8 ♀ Palni Hills. 13 ♂ 11 ♀ Nilgiris. 4 ♂ 3 ♀ Mysore. 15 ♂ 10 ♀ Coorg.

(b). Intermediate to *nicevillei*: ♂ with markings larger than in *ceramas* and the cell spot present upf, but no spot in space 1b: more complete in ♀ and spot in space 1b present.

Sub-sp. **media** Evans 1934: ♂ N. Kanara: type B.M. Fig Bell 1920 as *ceramas*.

B.M. 27 ♂ 27 ♀ N. Kanara.

(c). Markings complete in ♂ and ♀, extending into space 1b upf.

Sub-sp. **nicevillei** Watson 1893: ♂ Bombay: type B.M. Fig Elwes & Edwards 1897; Seitz; Lep Ind.

B.M. 19 ♂ 13 ♀ Bombay.

(d). Above markings very broad and completely conjoined, except at vein 4 upf. Unh densely overlaid with ochreous grey scales, the cell spot and much enlarged spot in spaces 4 to 5 showing faintly. ♂ F 12 mm.

Sub-sp. **oberthüri** Elwes & Edwards 1897: ♂ "Trichinopoly": type B.M. Fig Lep Ind.

B.M. 2 ♂ 3 ♀ Animalai Hills, S. India.

(e). Unh yellow with yellow veins and conspicuous black spots. Upf markings as in *media*, the spots in spaces 4–5 being widely separated from the apical and lower discal spots. ♂ F 12 mm.

Sub-sp. **atropunctata** Watson 1896: ♂ Chindwin, N. Burma: type B.M.: figured. Fig Lep Ind.

B.M. 1 ♂ 1 ♀ Manipur. 4 ♂ 2 ♀ Chindwin.

(f). Similar, but larger, ♂ F 14 mm., and the tawny markings above, much wider, as in *oberthüri*: upf the spots in spaces 4 and 5 conjoined to the apical spots.

Sub-sp. **thelma** Evans 1934: ♂ Kwang Si, China: type B.M. Fig Kershaw 1907 as *atropunctata*.

B.M. 1 ♂ 1 ♀ Kiang Si. 7 ♂ 1 ♀ Kwang Si. 1 ♀ Fukien. 4 ♂ 1 ♀ Kwang Tung.

5a (4). Upf spots in spaces 4 and 5 tending more to be conjoined to the lower discal spots than to the apical spots: markings broad and complete, reaching vein 1 upf and unf.

5 (6). Unh markings not black-edged. Wings rounded. ♂ F 11 mm.

***tilda** Evans 1934: ♂ Ta Tsien Lou: type B.M.
B.M. 31 ♂ 5 ♀ W. Szechwan (Ta Tsien Lou, etc.). 3 ♂ 1 ♀ Yunnan (Li-kiang).

6 (5). Unh markings black-edged. Wings produced. ♂ F 13 mm.

flavoides Leech 1894 :♂ Ta Tsien Lou: type B.M.: figured. Fig Seitz I.
B.M. 37 ♂ 9 ♀ W. Szechwan (Ta Tsien Lou, etc.). 14 ♂ 6 ♀ Yunnan (Li-kiang, A-tun-tse, Teng Yueh Ting). 2 ♂ E. Thibet (Batang).

7 (4c). Uph the discal spots in spaces 1c to 5 in line. Unh veins more or less darkened. ♂ F 11 mm.

ziclea. 6 sub-species.

(a). Above markings narrow: upf spots in spaces 4 to 5 detached.

Sub-sp. ***zenia** Evans 1934: ♂ Mergui: type B.M.
B.M. 3 ♂ 2 ♀ Mergui. 1 ♂ Peninsular Siam.

(b). Upf spots in spaces 4–5 conjoined to the lower discal spots, but not in line with them. Above markings narrow and redder.

Sub-sp. **tissara** Fruhstorfer 1910: ♂ Sumatra: type B.M.
B.M. 21 ♂ 5 ♀ Sumatra. 1 ♂ Nias. 3 ♂ 3 ♀ Mentawi Is. 10 ♂ Siberut.

(c). Similar, but markings yellower and rather broader.

Sub-sp. **stella** Evans 1934: ♂ Borneo: type B.M.
B.M. 22 ♂ 12 ♀ Borneo. 5 ♂ 2 ♂ Labuan. 1 ♂ Sibuti Is.

(d). Upf band broad, as broad or broader than the dark border.

Sub-sp. **ziclea** Plötz 1884: ♂ Philippines. Fig Swinhoe 1908; Seitz as *luzonensis*. Seitz fig of *ziclea* is *archias* and fig by Watson 1894 is of *samadha*.
B.M. 5 ♂ 2 ♀ Palawan. 57 ♂ 24 ♀ Philippines, all islands.

(e). Band upf as broad as in *ziclea*, but straighter, the spots in spaces 4 to 5 being in line with those in spaces 1b to 3.

Sub-sp. **dongola** Evans 1932: ♂ Celebes: type B.M.
B.M. 20 ♂ 4 ♀ Celebes. 2 ♂ Sula Is.
(f). Upf band straight as in *dongala*, but much narrower, half the width of the dark border.

Sub-sp. **bessa** nov: ♂ Toekan Bessi: H. Kühn: type B.M.
B.M. 4 ♂ 2 ♀ Toekan Bessi. 1 ♀ Djampea. 1 ♂ Saleyer.

8a (4b). Uph or unh discal band not continued into space 7.
8 (9). Upf spots in spaces 4 and 5 always narrower than those in spaces 2 and 3 and never completely overlapping the spots in spaces 6 to 8. ♂ F 10–12 mm.

archias. 5 sub-species.
(a). ♂ upf central black band complete, as in all females: spots in spaces 4 and 5 detached from the apical spots.

Sub-sp. **samadha** Fruhstorfer 1910: ♀ Thayetmyo: type B.M. Fig Watson 1894; Lep Ind.
Synonym. *aurea* (Watson MS) Evans 1932=*samadha.*
B.M. 4 ♂ 3 ♀ Upper Burma (Thayetmyo, Tilin Yaw).
(b). ♂ upf central black band obsolete between end cell and vein 1: area between lower portion of band and the base undarkened. Uph with a conspicuous cell spot.

Sub-sp. **quinta** Swinhoe 1913: ♂ Ataran: type B.M.: figured (all figures ♂). Fig Distant as *nigrolimbata.*
B.M. 1 ♂ Karens. 9 ♂ 1 ♀ Ataran. 1 ♀ Tavoy, Burma. 9 ♂ Siam. 5 ♂ 1 ♀ Annam. 5 ♂ 1 ♀ Malaya.
(c). ♂ upf area between lower portion of band and base darkened.

Sub-sp. **archias** Felder 1860: Amboina (recte Java): type B.M. Fig Rhop Java as *archias*; Seitz as *archias*, *ziclea* and *nigrolimbata.*
Synonyms. *nigrolimbatus* Snellen 1876: ♂ Java: figured.
dschaka Plötz 1885: ♂ Java.
ikramana Fruhstorfer 1910: ♀ Java: type B.M.
turica (Plötz MS) Seitz 1927=*nigrolimbatus.*
B.M. 51 ♂ 11 ♀ Java. 2 ♂ 1 ♀ Bali. 1 ♂ Banka.
(d). As last, but ♂ upf spots in spaces 4 and 5 conjoined to apical spots.

Sub-sp. **kisaga** Fruhstorfer 1910: ♂ Lombok: type B.M.
B.M. 24 ♂ 5 ♀ Lombok. 14 ♂ 1 ♀ Sumba. 11 ♂ 1 ♀ Sumbawa. 1 ♂ Tambora. 4 ♂ S. Flores. 3 ♂ Alor.
(e). A reversion to *samadha*, ♂ upf central black band is complete, but the spots in spaces 4 and 5 are conjoined to the apical spots.
Sub-sp. **bavius** Mabille 1891: ♂ Timor: MS fig by Mabille in B.M.
B.M. 1 ♂ Alor. 4 ♂ 2 ♀ Kisser. 1 ♂ Oinainisa. 6 ♂ 2 ♀ Timor.

9 (8). Upf the spots in spaces 4 and 5 as wide as the spots in spaces 2 and 3 and completely overlapping the apical spots. Smaller, ♂ F 10 mm. and wings more rounded. Clasp form considerably different: style very short and close to the valva, whereas in *archias* the style is as long as the end of the valva and widely divergent therefrom.
aliena. 2 sub-species.
(a). ♂ upf central dark band more or less complete and space 1b dark between the base and the band.
Sub-sp. **aliena** Plötz 1883: ♂ Java. Fig Seitz.
Synonym. *myconius* Plötz 1884: ♀ Java. Fig Seitz.
B.M. 1 ♂ Saigon. 1 ♂ 1 ♀ Malaya. 1 ♂ Sumatra. 1 ♀ Banka. 56 ♂ 13 ♀ Java.
(b). ♂ upf central dark band obsolete between end cell and vein 1: space 1b clear or shaded between band and base.
Sub-sp. **talantus** Plötz 1885: ♂ Celebes. Fig Seitz as *antalcidas*.
Synonym. *godhania* Fruhstorfer 1910: ♂ Sumba.
B.M. 3 ♂ Bali. 1 ♂ Lombok. 4 ♂ 3 ♀ Sumba. 1 ♂ Sumbawa. 4 ♂ Tambora. 2 ♂ Celebes. 1 ♀ "Amboina. Wallace".

10a (1a). End of antennal club more or less triangular and shortly pointed. Australian series.
10b (12a). ♂ upf without a discal stigma.
10 (11). ♂ upf with obscure traces of brands along the veins, above the middle of vein 1 (more distinct than elsewhere) and on either side of veins 2, 3 and 4. ♂ 9–11 mm. Uph usually with a spot in space 6.

dolon. 2 sub-species.

(a). Above markings broad, band as broad as the dark border. Upf spots in spaces 4 and 3 may be contiguous in ♂, but are detached in ♀.

Sub-sp. **diomedes** Waterhouse 1933: ♂ Darwin.

B.M. 6 ♂ 4 ♀ Port Darwin.

(b). Above markings narrow, band narrower than dark border. Upf ♂ ♀ spots in spaces 4 and 3 apart.

Sub-sp. **dolon** Plötz 1884: ♂ New Holland. Fig Seitz; Waterhouse & Lyell 1914; Waterhouse 1932.

B.M. 8 ♂ 9 ♀ N. Queensland (Cairns, Kuranda). 5 ♂ 3 ♀ Sudest Is.

11 (10). ♂ upf no trace of brands. Larger, ♂ 10–12 mm. Upf spots in spaces 4 and 3 generally contiguous in ♂, slightly overlapping in ♀. Uph no spot in space 6, but may be present in ♀, though not appearing unh.

ina. 2 sub-species.

(a). Markings pale and narrow: upf spots in spaces 4 to 5 nearer to termen than to the apical spots.

Sub-sp. **ina** Waterhouse 1932: ♂ Darwin. Fig Waterhouse 1932.

B.M. 1 ♂ Port Darwin.

(b). Upf spots in spaces 4 to 5 mid termen and apical spots.

Sub-sp. **iola** Waterhouse 1933: ♂ Hayman Is.

B.M. 1 ♂ 1 ♀ Hayman Is. 11 ♂ 5 ♀ Queensland (Mackay).

12a (10b). ♂ upf with a discal stigma from vein 1 to above vein 4.

12b (14). The stigma broken at each vein and in the middle of space 1b, narrow, zigzag, resembling *sunias*.

12 (13). Upf the discal yellow band from vein 1 to vein 6 inwardly excavate at veins 2 and 4. Uph no spot above vein 6. ♂ F 13 mm.

anisomorpha Lower 1911: ♂ Port Darwin. Fig Waterhouse 1932.

B.M. 1 ♂ Timor. 2 ♂ 2 ♀ N. Australia (Brooks Creek, Groote Eylandt). 5 ♂ 6 ♀ Queensland (Cooktown, Duaringa, Westwood, Brisbane).

13 (12). Upf the discal yellow band from vein 1 to vein 6 with straight edges as in *sunias*. Small, ♂ F 9–10 mm.

ilia. 2 sub-species.

(a). Uph discal band not entering space 6, but with a detached spot in space 7.

Sub-sp. **beta** Evans 1934: ♂ Dutch New Guinea: type B.M. B.M. 31 ♂ 7 ♀ New Guinea (Humboldt Bay, Astrolabe Bay Bulwa, Stephansort).

(b). Uph discal band may enter space 6, but no spot in space 7.

Sub-sp. **ilia** Waterhouse 1932: ♂ Kings Riv., N.T. Australia. Fig Waterhouse 1932.

B.M. 1 ♂ type loc.

14 (12b). ♂ upf stigma narrow and continuous. Upf spots in spaces 4 and 5 minute and oblique, directed to the termen instead of the costa, as in all other species. ♂ F 10 mm.

papyria. 2 sub-species.

(a). Unh with conspicuous white spots on a brown ground.

Sub-sp. **papyria** Boisduval 1832: New Holland. Fig Waterhouse 1932 and Seitz.

Synonyms. *celaeno* Cox 1873: ♂ S. Australia: type B.M.
fumosa Guest 1882: ♂ Balhannah, S. Australia.
alix Plötz 1884: ♂ New Holland.

B.M. 8 ♂ 2 ♀ Queensland (Kuranda). 30 ♂ 9 ♀ N. S. Wales. 20 ♂ 9 ♀ S. Australia. 11 ♂ 6 ♀ Tasmania.

(b). Unh inconspicuous yellow spots on a yellow ground.

Sub-sp. **agraulia** Hewitson 1868: ♀ Swan Riv.: type B.M. Fig Waterhouse 1932.

Synonym. *minimus* Miskin 1889: ♂ W. Australia.

B.M. 19 ♂ 9 ♀ S.W. Australia. 2 ♂ 1 ♀ N.W. Australia.

L.2. OCYBADISTES Heron 1894: type *walkeri* Heron: fixed by author.

1a (4a). ♂ upf with a black discal stigma from mid vein 1 to just above base vein 4. Uph and unh with a well-marked cell spot.

1b (3). Unh dorsum ochreous, concolorous with rest of wing.

1 (2). ♂ upf stigma straight and narrow. Uph discal band regular, tapering from vein 6 to vein 1b. Upf black central band runs straight across space 1b and is not reduced where it forks to the termen and costa on either side of the apical spots.

flavovittata. 4 sub-species.

(a). ♂ F apex rounder. Above, orange markings clearer and more regular. Uph discal band not entering space 6 in ♂. ♂ F 9 mm.

Sub-sp. **kokoda** nov: ♂ Kokoda, Papua, 1,200 ft.: Aug. 1933: L. E. Cheesman: type B.M.

B.M. 14 ♂ 9 ♀ New Guinea (Kokoda, Cyclops Mts., Humboldt Bay).

(b). ♂ F apex more produced. Small, ♂ F 9 mm. and pale.

Sub-sp. **vesta** Waterhouse 1932: ♂ Port Darwin. Fig Waterhouse & Lyell 1914, figs 858 ♂ 865 ♀ as *walkeri.*

B.M. 13 ♂ 3 ♀ N. Australia (Darwin, Marrahai, Groote Eylandt).

(c). Intermediate between *vesta* and *flavovittata.* ♂ F 10 mm.

Sub-sp. **ceres** Waterhouse 1933: ♂ Kuranda.

B.M. 29 ♂ 14 ♀ N. Queensland (Kuranda, Cooktown, Mackay).

(d). Larger, ♂ 10½ mm. F. ♀ very like ♀ *walkeri sothis,* but the unh is brownish, never with a greenish tinge, while the band is more conspicuous and regular, but not black-edged.

Sub-sp. **flavovittata** Latreille 1823: ♀ New Holland: type B.M. Fig Waterhouse & Lyell, fig 866 ♀; Waterhouse 1932 as *hespera.*

Synonym. *hespera* Waterhouse 1932: ♂ Sydney.

B.M. 2 ♂ 1 ♀ S. Queensland. 40 ♂ 20 ♀ N. S. Wales. 1 ♂ 1 ♀ S. Australia (Blackwood, coll Meyrick, Parkside).

2 (1). ♂ upf stigma broad, covering all or most of black central band and in space 1b inclined inwards. Uph discal band broader, more irregular, usually widest in middle. Unh discal band less conspicuous.

walkeri. 6 sub-species.

(a). ♂ upf costal yellow area generally widely separated throughout from the apical yellow spots by the costal branch of the black central band. ♂ F 10 mm.

Sub-sp. **walkeri** Heron 1894: ♂ Dammer: type B.M. Fig Seitz.

Synonym. *sudodana* Fruhstorfer 1910: ♂ Sumba: type B.M.

B.M. 12 ♂ 4 ♀ Sumba. 1 ♂ S. Flores. 3 ♂ Alor. 10 ♂ 1 ♀ Dammer. 2 ♂ 1 ♀ Roma. 2 ♂ Kisser. 1 ♂ Babber. 1 ♂ Pura. 12 ♂ 2 ♀ Timor. 1 ♂ Larat. 4 ♂ 1 ♀ New Guinea (Salamaua, Collingwood Bay, Mondo). 2 ♂ Fergusson Is.

(b). ♂ upf costal and apical yellow areas completely conjoined. Above yellow areas pale and broad. Unh yellow, markings faint. ♂ F 10 mm.

Sub-sp. **sophia** Evans 1934: ♂ Tenimber: type B.M.

B.M. 40 ♂ 10 ♀ Tenimber.

(c). In Australia the unh usually has a greenish tinge and ♂ upf has the costal and apical areas usually divided by a black spot, which may be linked to the black central band. Darwin specimens are small, ♂ F 10 mm.: yellow areas pale and broad.

Sub-sp. **olivia** Waterhouse 1933: ♂ Port Darwin.

B.M. 5 ♂ 2 ♀ N. Australia (Darwin, Marrahai).

(d). Intermediate to *sothis*, ♂ F 10½ mm.

Sub-sp. **sonia** Waterhouse 1933: ♂ Kuranda.

B.M. 19 ♂ 9 ♀ N. Queensland (Kuranda, Cairns).

(e). Larger, ♂ F 11 mm.: yellow areas narrower and darker. Unh greenish tinge pronounced, discal band faint, irregular and edged with narrow dark lines.

Sub-sp. **sothis** Waterhouse 1933: ♂ Sydney. Fig Waterhouse & Lyell, ♂ nec ♀; Waterhouse 1932, as *flavovittata*.

B.M. 3 ♂ 1 ♀ S. Queensland. 41 ♂ 18 ♀ N. S. Wales. 4 ♂ 1 ♀ Tasmania.

(f). As *sothis*, paler and yellower.

Sub-sp. **hypochlora** Lower 1911: ♂ Adelaide. Fig Waterhouse & Lyell 1914; Waterhouse 1932.

B.M. 16 ♂ 5 ♀ S. Australia.

3 (1b). Unh edge of dorsum narrowly white. ♂ upf stigma narrow and zigzag. Uph conspicuous detached spot in space 6. ♂ F 12 mm.

hypomeloma. 2 sub-species.

(a). Above, markings pale and broad. Unh yellow.

Sub-sp. **vaga** Waterhouse 1932: ♂ Prince of Wales Is.

B.M. 1 ♂ type loc.

(b). Above markings narrower. Unh more or less brown shaded.

Sub-sp. **hypomeloma** Lower 1911: ♂ Sydney. Fig Waterhouse & Lyell 1914; Waterhouse 1932.

B.M. 4 ♂ S. Queensland (Burleigh Heads). 17 ♂ 5 ♀ N. S. Wales.

4a (1a). ♂ upf without a well-marked stigma. Uph and unh cell spot absent or faint. ♂ upf 9–11 mm.

4 (5). ♂ upf with a long narrow black brand over mid vein 1, short brands on either side of vein 2 and under origin of vein 3. Unh space 7 unmarked, veins not darkened, cilia unchequered.

ardea. 3 sub-species.

(a). Unf apex and unh brownish, rendering markings conspicuous.

Sub-sp. **dora** Evans 1934: ♂ Key Is.: type B.M.

B.M. 1 ♀ Wetter. 6 ♂ 1 ♀ Key. 1 ♀ Korrido (Doherty).

(b). Unh yellow, markings finely black-edged.

Sub-sp. **ardea** Bethune Baker 1906: ♀ Fak-Fak, N.G.: type B.M.

Synonyms. *udraka* Fruhstorfer 1910: Dutch New Guinea.
ardea Rothschild 1915: ♂ Dampier: type B.M.
lucia Evans 1934: ♂ Aru: type B.M.

B.M. 2 ♂ 3 ♀ Aru. 7 ♂ 2 ♀ Misol. 2 ♂ 1 ♀ Waigou. 29 ♂ 24 ♀ New Guinea. 2 ♂ 5 ♀ Roon Is. 2 ♂ 1 ♀ Goodenough Is. 2 ♂ 1 ♀ Dampier. 1 ♀ Vulcan Is. 2 ♂ New Britain. 2 ♂ 2 ♀ Sudest Is. (? nearer *dora*).

(c). Unh with a pronounced greenish tinge.

Sub-sp. **heterobathra** Lower 1908: ♂ Mackay. Fig Waterhouse 1932. Fig 872 in Waterhouse & Lyell 1914 is of *flavovittata*.

M.B. 17 ♂ 8 ♀ N. Queensland.

5 (4). ♂ upf without brands, but with very faint traces of a broad, zigzag discal stigma. Unh band darker red, often continued into space 7, where there is a basal spot, at least indicated by a dark bar: veins often darkened and cilia chequered.

***papua** Evans 1934: ♂ Hydrographer Mts., N.G.: type B.M.

B.M. 13 ♂ 14 ♀ New Guinea. 3 ♂ 3 ♀ Goodenough Is. 2 ♂ 4 ♀ Fergusson Is.

L.3. SUNIANA Evans 1934: type *lascivia* Rosenstock: fixed by author.

1 (2a). Above, yellow markings very narrow, macular, or absent. ♂ upf with a small black brand over the middle of vein 1. ♂ F 10 mm.

lascivia. 4 sub-species.

(a). Above, tawny markings completely absent in ♂: faint or absent in ♀. Unh dusky dark ochreous, markings absent or very faint.

Sub-sp. **tenuis** Evans 1934: ♂ Timor: type B.M.

B.M. 3 ♂ 3 ♀ Timor.

(b). Above, markings bright tawny and complete: upf cell mostly tawny. Unh bright yellow, markings complete up to space 6 or 7.

Sub-sp. **pola** Evans 1934: ♂ New Guinea: type B.M.

Synonym. ? *lasus* Waterhouse 1937: ♂ Bathurst Is.

B.M. 1 ♀ "Sumba". 2 ♂ New Guinea (labels unreliable?: a ♂ from Kuranda is very similar).

(c). Above, markings vary from dusky ochreous to clear tawny and may be incomplete. Unh generally yellow with more or less well-defined markings. Varies between *pola* and *lascivia*.

Sub-sp. **neocles** Mabille 1891: ♂ Cooktown.

B.M. 17 ♂ 4 ♀ N. Queensland (Kuranda, Cooktown).

(d). Above, markings dusky ochreous, usually complete upf and incomplete unf. Unh rather pale dusky ochreous and markings usually invisible.

Sub-sp. **lascivia** Rosenstock 1885: ♀ Melbourne. Fig Waterhouse 1932.

B.M. 7 ♂ 7 ♀ S. Queensland. 28 ♂ 17 ♀ N. S. Wales. 8 ♂ 2 ♀ Victoria.

2a (1). Above tawny markings complete and continuous.
2 (3). ♂ upf no brand or stigma. Upf inner edge of tawny discal band indented in spaces 1b and 4 to 5. ♂ F 13 mm.
***subfasciata** Rothschild 1915: ♂ Ceram: type B.M.
B.M. 1 ♂ Amboina. 15 ♂ 5 ♀ Ceram.

3 (2). ♂ upf with a broad discal stigma covering most of the dark central band and broken at each vein and mid space 1b. Upf inner edge of tawny band regular.
sunias. 8 sub-species.
(a). In the first 4 sub-species (Moluccas to New Guinea) the ochreous areas above are tawny rather than yellow. In the first two sub-species the apical spots upf are close to, or contiguous with, the discal band: in New Guinea these spots are generally smaller and often nearer to the yellow area in the cell than to the discal band. The darkest shade of tawny form comes from the N. Moluccas and unh the discal band is outwardly flanked by large dark spots. ♂ F 13 mm.
Sub-sp. **bella** Evans 1934: ♂ Batchian: type B.M.
B.M. 3 ♂ 3 ♀ Batchian. 1 ♀ Obi. 5 ♂ Halmaheira.
(b). Smaller, ♂ F 11 mm. and paler. Unh veins inconspicuously darkened.
Sub-sp. **sunias** Felder 1860: Amboina.
Synonym. *yashtivana* Fruhstorfer 1910: ♂ Ceram: type B.M.
B.M. 1 ♂ "Philippines". 2 ♀ Sumba. 3 ♂ 1 ♀ Banda Is. 8 ♂ 3 ♀ Koer Is. 1 ♂ Larut. 1 ♂ Letti. 1 ♂ Amboina. 1 ♂ Buru. 2 ♂ 1 ♀ Ceram. 26 ♂ 5 ♀ Kei Is. 3 ♂ 3 ♀ Aru.
(c). In W. New Guinea the prevailing form is large, ♂ F 13 mm. Above, markings narrower and more serrate outwardly than usual. Unh veins conspicuously dark: black edging to the discal band outwardly very serrate and the basal area often darkened.
Sub-sp. ***nihana** Fruhstorfer 1910: ♂ Waigou: type B.M.
Synonym. *fasciata* Rothschild 1915: ♂ Dutch N.G.: type B.M.

aola Evans 1934: ♂ Guadalcanar (? wrong label): type B.M.

B.M. 1 ♂ Waigou. 54 ♂ 25 ♀ Dutch New Guinea (Arfak) Mts., Utakwa R., Cyclops Mts., Fak-Fak, Geelvink and Humboldt Bay). 3 ♂ 1 ♀ Roon Is. 17 ♂ 2 ♀ Mandated Territory N.G. (Wau, Bulolo, Bulwa).

(d). The E. New Guinea form is more like *sunias*, ♂ F 12 mm. The markings are broader than in *nihana* and the darkened veins less conspicuous.

Sub-sp. **tanus** Plötz 1885: ♂ New Guinea: fig Swinhoe 1908. Fig Seitz.

B.M. 47 ♂ 21 ♀ Papua (Aroa, Mambare, Kumusi and St. Joseph Rivers, Hydrographer Mts., Milne Bay, Kokoda, Mondo, Mafulu). 2 ♂ Yule Is. 4 ♂ Dampier Is. 8 ♂ 2 ♀ Goodenough Is. 6 ♂ 2 ♀ Vulcan Is.

(e). In the yellow series Australian forms have the yellow areas comparatively narrow, the unh more or less shaded and the veins darkened. Darwin specimens are much paler than any other form of *sunias*. ♂ F 11 mm.

Sub-sp. **sauda** Waterhouse 1937: ♂ Port Darwin.

B.M. 6 ♂ 2 ♀ Port Darwin.

(f). Very like *sunias* or *tanus*, but yellower. ♂ F 11 mm.

Sub-sp. **rectivitta** Mabille 1877: ♂ Australia: type B.M. Fig Waterhouse & Lyell as *sunias*; Waterhouse 1932 as *tanus nihana*.

B.M. 44 ♂ 6 ♀ N. Queensland. 1 ♂ 1 ♀ Fiji Is.

(g). Above yellow markings narrower and unh darker than in any other *sunias* form.

Sub-sp. **nola** Waterhouse 1932: ♂ Port Macquarrie. Fig Waterhouse 1932.

B.M. 3 ♂ 1 ♀ S. Queensland and Manning Riv,. N. S. Wales.

(h). Pale with very broad markings and more rounded wings. Unh veins undarkened, at least on the discal band, which is broader and more regular than usual. ♂ F 10–12 mm.

Sub-sp. **isabella** Evans 1934: ♂ Guadalcanar: type B.M.

B.M. 8 ♂ 2 ♀ Rook Is. 5 ♂ 2 ♀ Sudest Is. 8 ♂ 5 ♀ Woodlark Is. 14 ♂ 1 ♀ Rossell Is. 3 ♂ 5 ♀ St. Aignan. 35 ♂ 19 ♀ Bismarcks (Witu, New Britain, New Hanover, New

Ireland, Duke of York Is.). 77 ♂ 40 ♀ Solomons (Maleta, St. Anna, Ugo, Fauro, Tulagi, Yanuta, Shortlands, Vella Lavella, Florida, Niasan, Kulambangra, Guizo, Rendova, Treasury, Guadalcanar, Bougainville).

L.4. ORIENS Evans 1932: type *gola* Moore: fixed by author. Synonym. *Nicévillea* Evans 1926: homonym by Hampson 1895.

1 (2a). Uph discal area a regular oval, reaching base of space 5. Upf discal band unbroken, no upper cell spot and lower cell spot conjoined to the band. ♂ F 13 mm.

paragola De Nicéville 1895: ♂ Sumatra. Fig De Nicéville 1899.
Synonym. *borneensis* Evans 1932 MS: *paragola.*
B.M. 10 ♂ 13 ♀ King Is., Mergui, S. Burma. 3 ♂ 9 ♀ Sumatra. 4 ♂ 2 ♀ Java. 7 ♂ 3 ♀ Borneo (Malaya, coll Corbet).

2a (1). Uph discal area a more or less irregular band, which does not reach to the base of space 5.
2b (8). Upf none of the discal spots hyaline.
2c (7). Upf and unf spot in space 1b in line with the discal band.
2d (5a). Uph inner edge of discal band even.
2e (4). Upf cell spot, if present, separated from the discal band by a dark vein.
2 (3). Larger, ♂ F 14 mm., and darker due to the tawny markings, above, being everywhere divided by dark veins. Upf cell spot usually absent. Unh overlaid dark green scales, discal band inconspicuous. Uncus straight, seen from side.

concinna Elwes & Edwards 1897: ♂ Nilgiris: type B.M.: figured. Fig Seitz and Lep Ind.
B.M. 15 ♂ 8 ♀ Nilgiris. 10 ♂ 6 ♀ Coorg. 4 ♂ 2 ♀ Palni Hills. 1 ♂ 1 ♀ Trevandrum. 1 ♂ 2 ♀ Billigarangar Hills.

3 (2). Smaller, ♂ F 12–13 mm. Upf with 1 or 2 cell spots. Unh ochreous. DSF much brighter, resembling *gola*: WSF nearly as dark as *concinna*. Uncus, seen from side, acutely bisinuate.

goloides Moore 1881: ♂ Ceylon: type B.M.: figured. Fig Lep Ind, pl. 816/1 ♂ ♀ as *gola*. Fig Seitz, pl. 171/a–♀. Genitalia fig Elwes & Edwards as *gola*.
B.M. 25 ♂ 23 ♀ Ceylon. 32 ♂ 32 ♀ S. India. 5 ♂ 3 ♀ Sikkim. 2 ♂ 1 ♀ Bhutan. 11 ♂ 8 ♀ Assam. 10 ♂ 11 ♀ Burma (Shan St. to Mergui). 1 ♀ Hainan. 4 ♀ Malaya.

4 (2e). Upf cell spot completely conjoined to the discal spot in space 2. Uncus, seen ventrally, needle-like, as in *goloides* and *concinna*: seen from the side, gently bisinuate.
gola. 3 sub-species.
(a). Small bright form with more rounded wings, ♂ F 12 mm. Upf with a double cell spot and band continuous through spaces 4 and 5, at least in ♂.
Sub-sp. **gola** Moore 1877: ♀ Andamans: type B.M.: figured.
B.M. 11 ♂ 9 ♀ Andamans.
(b). Generally larger, ♂ F 13 mm. and wings more produced. Upf discal band complete in spaces 4 and 5: upper cell spot often absent.
Sub-sp. **pseudolus** Mabille 1883: ♀ No loc. (probably Java): type B.M. Fig Rhop Java and Seitz (pl. 170i) as *gola*.
Synonym. *fabriolata* Plötz 1884: ♂ Java. Fig Seitz.
naranata Distant 1886: ♂ Singapore: figured as *goloides*.
rajagriha Fruhstorfer 1911: ♂ Sumatra: type B.M.
trishna Fruhstorfer 1911: ♂ Nias: type B.M.
B.M. 1 ♂ Nepal Terai. 2 ♂ Sikkim. 3 ♂ 1 ♀ Assam. 17 ♂ 12 ♀ Burma. 1 ♂ 3 ♀ Nicobars. 1 ♂ 1 ♀ Siam. 1 ♀ Indo-China. 7 ♂ Hainan. 1 ♂ Hupeh, China. 8 ♂ 1 ♀ Malaya. 15 ♂ 9 ♀ Sumatra. 20 ♂ 5 ♀ Nias. 2 ♀ Banka. 18 ♂ 19 ♀ Java. 3 ♂ 3 ♀ Bali. 13 ♂ 4 ♀ Borneo. 9 ♂ 4 ♀ Palawan.
(c). Unh much darkened and upf band discontinuous in space 5.
Sub-sp. **nipata** Fruhstorfer 1911: ♂ Sumba.
Synonym. *rosa* Evans: ♂ Sumbawa: type B.M.
B.M. 1 ♀ Lombok. 2 ♂ 1 ♀ Sumbawa. 5 ♂ Adonara. 2 ♂ S. Flores.

5a (2d). Uph inner edge of discal band deeply indented in space 3. Uncus, seen from side, evenly curved: seen ventrally, narrow and tapered, not needle-like.

5 (6). Upf cell spot conjoined to spot in space 2, as in *gola*, which it very closely resembles. ♂ F 13 mm. Clasp undivided.

californica Scudder 1872: ♂ "California" (Philippines, fide Evans 1935, Stylops 4: 101).
Synonyms. *akar* Mabille 1883: ♂ Philippines: type B.M. Fig Semper 1892.
locus Plötz 1886: ? loc.: copy unpublished plate in B.M.
B.M. 13 ♂ 2 ♀ Philippines (Mindanao, Mindoro, Pilollo, Luzon, Los Banos).

6 (5). Upf all markings separated by dark veins, resembling *goloides*. Below much darker: unf with conspicuous large black spots between the discal and pre-terminal ochreous bands: unh basal area darkened, showing up the cell spot and with large black spots, as described for unf. ♂ F 13½ mm. Uncus with a gnathos, and clasp deeply divided.

fons nov: ♂ Los Banos: 16th Feb. 1924: Miss M. E. Fountaine: type B.M.
B.M. 1 ♂ Los Banos. 2 ♂ 1 ♀ Luzon, Palali, 2,000 ft., Benguet.

7 (2c). Upf and unf spot in space 1b narrow, not nearly as wide as the spot in space 2, and in line with the double cell spot and not with the discal band. Upf discal band discontinuous in space 5. Markings darker orange. ♂ F 12 mm. Uncus, seen ventrally, broader than in the previous species, end triangular.

alfurus Plötz 1885: ♂ Celebes. Fig in Seitz.
B.M. 8 ♂ 4 ♀ Celebes.

8 (2b). ♂ upf and uph tawny band centrally hyaline.

augustula. 2 sub-species.
(a). ♂ F 14 mm. ♀ unh with a peculiar glazed appearance and band well marked in ♂ and ♀. Uncus tapered to a point.

Sub-sp. **augustula** Herrich-Schäffer 1869: Fiji.
Synonyms. *fitjiensis* Mabille 1878: ♀ Oceania: type B.M.
chaura Evans 1934: ♀ "Ceylon" (labels incorrect): type B.M.

B.M. 25 ♂ 30 ♀ Fiji. 1 ♂ "Port Darwin" (ex coll Hewitson).
(b). ♂ F 17 mm. ♂ above, tawny areas more extensive: cells entirely tawny. Uncus with rounded end.

Sub-sp. **alexina** Plötz 1884: ♂ Samoa: copy of unpublished fig in B.M.
Synonym. *fraseri* Hopkins 1927: ♂ Samoa: type B.M.: figured.
B.M. 2 ♂ Samoa.

L.5. POTANTHUS Scudder 1872: type *omaha* Edwards: fixed by author.
Synonyms. *Padraona* Moore 1881: type *dara* Kollar: fixed by author as *maesa* Moore, which is a synonym of *dara*. *Inessa* De Nicéville 1897: type *ilion* De Nicéville; fixed by author.

1a (6a). Clasp without a projecting cuiller.
1b (3a). Above with a strong purple gloss. Uncus evenly tapered to a sharp triangular point (as in *pallida*).
1 (2). Above markings dull orange, narrow: no spots in spaces 4 and 5 upf. ♂ upf no brand or stigma. ♂ F 15 mm.

***purpura** Evans 1932: ♂ Java: type B.M.
B.M. Only the type.

2 (1). Above markings white, narrow: with spots in spaces 4 and 5, as usual. ♂ upf with a discal stigma. ♂ F 14 mm.

ilion De Nicéville 1897: ♂ Lombok: figured. Fig in Seitz.
Synonym. *sutrana* Evans 1932: ♂ Timor: type B.M.
B.M. 2 ♂ 2 ♀ Lombok. 1 ♂ Sumba. 2 ♂ Sumbawa. 4 ♂ Alor. 1 ♂ Oinanaisa. 1 ♂ Pura. 4 ♂ Adonara. 2 ♂ 1 ♀ Timor.

3a (1b). Above without a purple gloss and markings tawny. ♂ upf with a discal stigma: discal band straight to space 5.
3 (4, 5). Uncus tapered to a sharp point. Uph band extends into space 6 and unh to vein 8, where it is edged with more or less conspicuous black dots, absent in DSF. ♂ F 14 mm.

rectifasciata Elwes & Edwards 1897: ♂ Sikkim: type B.M.: figured. Fig in Seitz: fig in Lep Ind, pl. 815/1, ♂=*lydia* and ♀=*bambusae*.
B.M. 2 ♂ Sikkim. 1 ♂ Bhutan. 2 ♂ Assam. 27 ♂ 3 ♀ Burma to Tavoy. 2 ♂ Siam. 1 ♂ Indo-China (Malaya, coll Corbet).

4 (3, 5). Uncus tapered to a broad flat tip. Unh band not extending beyond vein 6, dull orange, edged with black lines. ♂ F 16 mm.
***upadhana** Fruhstorfer 1911: ♀ Lombok: type B.M.
Synonym. *cakka* Fruhstorfer 1911: ♂ Java: type B.M.
B.M. 16 ♂ 1 ♀ Java. 1 ♀ Lombok.

5 (3, 4). Uncus broad, not tapered, ending in a wide angle V. Marked as in *rectifasciata*. ♂ F 14 mm.
***pamela** Evans 1934: ♂ Java: type B.M.
B.M. 1 ♂ Sumatra. 11 ♂ 2 ♂ Java. 2 ♂ 3 ♀ Borneo.

6a (1a). Clasp with a projecting cuiller. ♂ upf usually with a small brand over mid vein 1.
6b (16a). Uncus tapered, 6c (11a) evenly, 6d (9a) to an undivided point, 6e (8), which is triangular.
6 (7). Uncus tapered to a sharp triangular point. ♂ upf the brand unusually long, extending nearly to the outer edge of the discal band. Above markings yellow. Upf spots in spaces 4 and 5 detached from the band. Unh generally yellow, the band of the same colour and defined by black dots: sometimes the wing is shaded with dark scaling. ♂ F 14 mm.: wings less produced than usual.
***pallida** Evans 1932: ♂ Sikkim: type B.M. Fig Lep Ceylon 1881 as *maesoides*: Woodhouse 1942 as *pseudomaesa*.
B.M. 4 ♂ 1 ♀ Ceylon. 3 ♂ 3 ♀ S. India (Nilgiris, Palnis). 4 ♂ 2 ♀ N.W. Himalayas (Simla to Kumaon). 47 ♂ 9 ♀ Sikkim. 1 ♂ Bhutan. 2 ♂ 1 ♀ Assam. 4 ♂ 2 ♀ Burma (to Karens). 3 ♂ Siam. 2 ♂ Yunnan. 1 ♂ Peninsular Siam.

7 (6). Uncus tapered to a blunt triangular point: cuiller curved. Uph usually a conspicuous spot in space 7 and none in space 6.

trachala. 5 sub-species.

(a). Large, ♂ F 15 mm. Above markings broad and pale tawny: upf band as in *pallida*. Unh band paler than the more or less shaded ground, undivided by dark veins, usually edged with black spots.

Sub-sp. **phoebe** Evans 1934: ♂ Tay Tou Ho: type B.M.

B.M. 13 ♂ 3 ♀ type loc. 8 ♂ Hupeh. 1 ♂ Kiang Si. 2 ♂ 3 ♀ Fukien. 1 ♂ Yunnan.

(b). Similar, but markings narrower and more tawny. ♂ F 13–15 mm. Larger specimens prevail in N.E. India: S. Burmese specimens are usually small: in Malaya large or small.

Sub-sp. **tytleri** Evans 1914: ♂ Manipur: type B.M. The type, figured by Evans 1914, is a melanic aberration and was described in the genus *Plastingia*: its genitalia are those of *trachala* exactly.

Synonym. *ino* Evans 1932: ♂ Mergui: type B.M. Small form.

B.M. 43 ♂ 6 ♀ Sikkim. 18 ♂ 6 ♀ Assam. 43 ♂ 17 ♀ Burma. 12 ♂ 4 ♀ Siam. 7 ♂ 1 ♀ Peninsular Siam. 1 ♂ 6 ♀ Indo-China. 7 ♂ 8 ♀ Malaya.

(c). ♂ F 13 mm. Upf markings dark tawny and very narrow.

Sub-sp. **ottalina** Evans 1932: ♂ Andamans: type B.M.

B.M. 3 ♂ 1 ♀ Andamans.

(d). Large, ♂ F 15 mm. Like *tytleri*, but unh the band is divided by dark veins and outwardly edged by dark bars.

Sub-sp. ***trachala** Mabille 1877: ♂ Java: type B.M. Fig Seitz; Rhop Java, as *dara*.

Synonym. *zatilla* Plötz 1886: ♂ ? loc. Copy of MS fig in B.M.

B.M. 16 ♂ 3 ♀ Hainan. 10 ♂ 6 ♀ Sumatra. 7 ♂ 5 ♀ Java.

(e). Above markings narrow and pale, nearly white. ♂ F 14 mm.

Sub-sp. **dilutior** Elwes & Edwards 1897: ♂ Pulo Laut: type B.M.: figured. Fig in Seitz.

Synonym. *sumatrensis* Mabille 1904 MS: *dilutior*.

B.M. 27 ♂ 11 ♀ Borneo.

8 (6e). Uncus tapered to a narrow flat point. Markings as in *trachala*, but broader and more regular: upf spots in spaces 4 and 5 detached from the band. ♂ F 14 mm.

pseudomaesa. 3 sub-species.

(a). Unh dull brownish ochreous: band scarcely paler than the ground and defined by dull dark bars: usually 3 dark bars in space 7. Uph no spots in spaces 6 and 7.

Sub-sp. **pseudomaesa** Moore 1881: ♂ Ceylon: type B.M. Fig Lep Ind, pl. 814/3 ♂ ♀ as *satra*; Woodhouse 1942, pl. 35/16 ♂ is *pallida*.

Synonym. *cato* Evans 1932: ♂ Jabalpur: type B.M. Fig Woodhouse, pl. 35/19 ♂.

B.M. 28 ♂ 12 ♀ Ceylon. 15 ♂ 5 ♀ S. India. 2 ♂ 2 ♀ Mt. Abu 3 ♂ Centr. Prov.

(b). Paler. Unh band more contrasting and defined by black spots. Uph may be spots in spaces 6 and 7, but smaller than in *dara*.

Sub-sp. ***clio** Evans 1932: ♂ Dharmsala: type B.M. Fig Kershaw as *dara*.

B.M. 20 ♂ 7 ♀ N.W. Himalayas (Kashmir to Simla). 1 ♂ 1 ♀ Sikkim. 7 ♂ 3 ♀ Assam. 8 ♂ Burma (to Shan States). 1 ♂ 1 ♀ Hong Kong. 3 ♂ 2 ♀ "Malaya" (? N.W. Himalayas).

(c). Above with much broader markings. Below, band only differentiated from the yellow ground by black dots. Uph with conspicuous spots in spaces 6 and 7.

Sub-sp. **paula** Evans 1934: ♂ Ta Ho, Thibet: type B.M.

B.M. 23 ♂ 6 ♀ W. Szechwan (Ta Tsien Lou, etc.). 2 ♂ 3 ♀ Hupeh.

9a (6d). Uncus tapered to a divided point.

9 (10). End uncus scalloped with rounded shoulders. Upf spots in spaces 4 and 5 in line with the band or nearly so, as in all subsequent species except *dara*. ♂ F 14 mm.

juno. 2 sub-species.

(a). Dark, with narrow markings, redder than usual. Uph with a spot in space 7, none in space 6. Unh dark, no black spotting: band usually enters space 6.

Sub-sp. ***juno** Evans 1932: ♂ Rangoon: type B.M. ♀ fig Lep Ind, pl. 816/2b as *ottala*.

B.M. 1 ♂ Assam. 1 ♂ Rangoon. 1 ♂ Tavoy. 11 ♂ 9 ♀ Mergui. 1 ♂ Peninsular Siam. 9 ♂ 4 ♀ Malaya.

(b). Paler, with broader markings. Larger than *angustata* and upf apical spots detached from the discal band.

Sub-sp. **wilemanni** Evans 1934: ♂ Formosa: type B.M.

B.M. 1 ♂ Formosa.

10 (9). End uncus like a shallow V, shoulders angled. ♂ F 13 mm. Above like *archias*. Unh no spots in spaces 6 and 7.

***amor** Evans 1932: ♂ Timor: type B.M.

B.M. 3 ♂ Sumba. 1 ♂ Oinanaisa. 3 ♂ 1 ♀ Timor.

11a (6c). Tapering at sides of uncus uneven: tip expanded.

11b (13a). Uncus tapered to a slender stalk, which is surmounted by a small rounded, or faintly scalloped, tip.

11 (12). Uncus with the slender stalk very long, equal to half the length of the uncus: cuiller very short and broad. ♂ F 14 mm. Above markings broad and pale: ♂ upf brand vestigial. Unh yellow, band defined by dull dark bars, no spot in space 6.

***sita** Evans 1932: ♂ Sikkim: type B.M.

B.M. 3 ♂ 1 ♀ Sikkim. 1 ♂ Assam. 4 ♂ 1 ♀ Burma (Sadon, Maymyo).

12 (11). Uncus with the slender stalk short, less than one quarter of length of uncus. Unh veins darkened and usually also on uph. Upf apical spots detached. Unh darkened.

omaha. 6 sub-species.

(a). Above markings very narrow, discal band much narrower than the central dark band. Unh greenish brown. ♂ F 12 mm.

Sub-sp. **ottala** Swinhoe 1913: ♂ Karens, Burma: type B.M.: figured, pl. 816/2 ♂ (♀ is *juno*).

B.M. 21 ♂ 2 ♀ Karens. 4 ♂ 1 ♀ Ataran, Burma.

(b). Above markings normal. Unh greenish brown, band usually continued into space 6. ♂ F 12 mm.

Sub-sp. **omaha** Edwards 1863: ♀ "Colorado" (recte Malaya, fide Evans 1935; Stylops 4: 100).

Synonyms. *maesoides* Butler 1877: ♂ Malacca: type B.M.

Fig Distant; Seitz; Evans 1926 and 1932. Lep Ceylon description is of *satra* and figures of *pallida*. Lep Ind figures on pl. 815 are *satra*.
luzonensis (Mabille MS) Staudinger 1889=*maesoides*: no indication of identity given. Fig in Seitz is *ziclea*.
B.M. 14 ♂ Tavoy, 31 ♂ 8 ♀ Mergui. 8 ♂ Siam. 1 ♂ 1 ♀ Annam. 28 ♂ 7 ♀ Malaya. 2 ♂ Lingga Is. 1 ♂ Sumbawa.
(c). Constantly larger, ♂ F 13 mm.

Sub-sp. **copia** Evans 1932: ♂ Sumatra: type B.M.
B.M. 35 ♂ 22 ♀ Sumatra.
(d). ♂ F 12 mm. All markings brighter and broader, as is usual in Borneo.

Sub-sp. ***maesina** Evans 1934: ♂ Borneo: type B.M.
B.M. 2 ♂ Banka. 1 ♂ Natuna. 28 ♂ 14 ♀ Borneo.
(e). Large, ♂ F 14 mm. Marked as in *copia*. Cuiller of clasp curved instead of straight as in *omaha*. Identical with *niobe* except for the genitalia.

Sub-sp. **bione** nov: ♂ Mindanao: J. Waterstradt: 1903–04.
B.M. Only the type.
(f). ♂ F 13 mm. Marked as *copia*: clasp as *bione*. Inseparable from *nikaja* except for the genitalia.

Sub-sp. **nita** Evans 1934: ♂ Celebes: type B.M.
B.M. 1 ♂ Celebes.

13a (11b). Uncus more or less constricted before the tip, but without a stalk.
13b (15). End of uncus rounded, bulbous.
13 (14). Cuiller of clasp curved. Above markings narrow, yellow. Upf spots in spaces 4 and 5 separated from the band as in *trachala*. Uph conspicuous spot in space 6, none in space 7. Cilia grey. Unh band varies from being invisible to being defined by black dots.

dara Kollar 1848: Himalaya. Fig Lep Ind, pl. 816/3 ♂ ♀ as *nala*. Of the figures marked *dara*: Leech, pl. 40/14 ♂ is *pava*: Elwes & Edwards, pl. 25/69 genitalia are *flava*: Kershaw 1905, pl. 14/22 is *pseudomaesa clio*: Lep Ind, pl. 814/2 ♂ is *palnia* and ♀ *trachala tytleri*: Rhop Java, pl. 9/65 is *trachala*.
Synonym. *maesa* Moore 1865: ♂ Kulu: type B.M.: figured.

nala Plötz 1883: ♀ India: copy MS plate in B.M.
zebra (Mabille MS) Elwes & Edwards 1897 = *dara*.
B.M. 33 ♂ 28 ♀ N.W. Himalayas (Chitral to Kumaon).

14 (13). Cuiller of clasp straight. Above markings tawny. Upf spots in spaces 4 and 5 united with the discal band but usually not to the apical spots. A very variable species and difficult to separate from the equally variable species flying with it.

taxilus. 8 sub-species.

(a). Typically small, ♂ F 11 mm. Upf dark bar, separating the basal and apical tawny areas on the costa, is reduced. Unh band red contrasting with the darker ground.

Sub-sp. **alma** Evans 1934: ♂ Nias: type B.M.
B.M. 5 ♂ 3 ♀ Nias. 6 ♂ 3 ♀ Batoe Is. 5 ♂ 2 ♀ Sumatra. 6 ♂ 2 ♀ Mentawi Is. (Siberut, Sipora: more like *taxilus*).

(b). ♂ F 12 mm. Upf black costal bar broad. Unh band yellower.

Sub-sp. **taxilus** Mabille 1878: ♂ Java. The name has been referred by Fruhstorfer, Swinhoe and Seitz to *gola*, though Mabille's description is reasonably clear.
B.M. 43 ♂ 6 ♀ Java.

(c). Larger, ♂ F 14 mm., and with narrower markings.

Sub-sp. **sapitana** Fruhstorfer 1911: ♂ Lombok: type B.M.
B.M. 5 ♂ 1 ♀ Lombok.

(d). Tawny areas very broad, the apical spots conjoined to the spots in spaces 4 and 5 and to the costal area.

Sub-sp. **ahastina** Fruhstorfer 1911: ♀ Borneo: type B.M.
B.M. 5 ♂ 1 ♀ Borneo.

(e). Like *ahastina*, but markings rather narrower. Unh band defined by black dots.

Sub-sp. **alpha** Evans 1934: ♂ Philippines: type B.M.
B.M. 2 ♂ Philippines.

(f). Similar to *taxilus*, but larger, ♂ F 13 mm., and with brighter markings. Specimens from the islands near by display a great deal of variation.

Sub-sp. **nikaja** Fruhstorfer 1911: ♂ Celebes: type B.M.
B.M. 30 ♂ 8 ♀ Celebes. 1 ♂ Siao. 1 ♀ Laut. 1 ♂ Djampea. 2 ♂ Kalao. 1 ♂ 1 ♀ Toeken Bessi.

(g). Moluccan specimens are redder and in the N.

Moluccas the markings are broad, as in *taxilus*. ♂ F 12 mm.

Sub-sp. **rabida** nov: ♂ Batjan: type B.M.

B.M. 15 ♂ 2 ♀ Batjan. 5 ♂ 2 ♀ Halmaheira. 7 ♂ 2 ♀ Obi. 2 ♂ Ternate. 1 ♂ 2 ♀ Jango Is.

(h). Markings narrow: upf discal band half the width of the black central band.

Sub-sp. **ahrendti** Plötz 1883: ♂ Amboina. Fig Swinhoe 1908; Ribbe 1889 (pl. 5/5).

B.M. 7 ♂ Amboina. 1 ♂ Manovolka. 20 ♂ 6 ♀ Buru. 14 ♂ 2 ♀ Ceram. 2 ♂ 3 ♀ New Guinea (?). 1 ♂ New Britain (?).

15 (13b). End of uncus excavate between sharply angled shoulders. Cuiller straight and long.

flava. 3 sub-species.

(a). Large, ♂ F 16 mm. Very like *trachala*, but upf spots in spaces 4 and 5 in line with the discal band and contiguous with the apical spots. Uph spots in space 6 sometimes, and spot in space 7 usually, present. Unh darkened, band edged with dark spots.

Sub-sp. **flava** Murray 1875: ♀ Japan: type B.M. Fig Pryer; Leech. Fig Elwes & Edwards 1897, genitalia as *dara*.

Synonym. *japonica* Mabille 1883: ♀ Japan: type B.M. Fig Seitz, pl. 170h ♀ upperside: underside is *confucius*.

B.M. 24 ♂ 24 ♀ Japan. 1 ♂ Amur. 1 ♂ 3 ♀ Korea. 1 ♂ 1 ♀ Shantung. 1 ♂ Kiang Si. 1 ♂ 1 ♀ Chekiang. 2 ♂ Hunan. 2 ♂ 4 ♀ Hupeh. 1 ♀ Kwei Chow. 20 ♂ 7 ♀ W. Szechwan (Ta Tsien Lou area). 3 ♂ Yunnan.

(b). Darker, markings orange and more regular. Uph spot in space 7 present, none in space 6. Unh darkened, no black spots. ♂ F 15 mm.

Sub-sp. ***alcon** Evans 1932: ♂ Karens: type B.M.

B.M. 2 ♂ 2 ♀ Naga Hills. 5 ♂ 4 ♀ Burma (S. Shan St., Karens, Ataran).

(c). ♂ F 14 mm. Upf spots in spaces 4 and 5 more detached. Unh band divided by dark veins.

Sub-sp. **niobe** Evans 1934: ♂ Mindanao: type B.M.

B.M. Only the type.

16a (6b). Sides of uncus not tapered.
16b (24a). Cuiller of clasp slender, pointed.
16c (22a). Uncus width a quarter of its length or less.
16d (19a). Uncus with rounded shoulders.
16 (17a). Uncus with the end rounded or slightly scalloped. A small species with broad markings: upf spots in spaces 4 and 7 always confluent with the discal band and generally with the apical spots.

confucius. 7 sub-species.

(a). Yellower than in other forms. Unh black spotted. ♂ F 12 mm.

Sub-sp. **confucius** Felder 1862: ♂ Ningpo: type B.M.
Synonym. *freda* Evans 1934: ♂ Kiu Kiang: type B.M.
1 ♂ Japan. 5 ♂ 2 ♀ Hupeh. 1 ♂ Chekiang. 5 ♂ 3 ♀ Fukien. 20 ♂ 6 ♀ Kwang Tung. 3 ♂ Kang Si. 6 ♂ 2 ♀ Yunnan.

(b). Similar to *confucius*, but markings narrow.

Sub-sp. **angustata** Matsumura 1910: ♂ Formosa.
B.M. 25 ♂ 11 ♀ Formosa.

(c). Tawny. Small, 11 mm. Markings narrow. Unh without black spotting. Cuiller of clasp very short.

Sub-sp. **satra** Fruhstorfer 1911: ♂ Ceylon: type B.M. Fig Woodhouse 1942, pl. 35/19, ♂ as *cato*; Lep Ind, pl. 815/2 as *maesoides*, but pl. 814/3 of *satra* is *pseudomaesa.*
B.M. 33 ♂ 21 ♀ Ceylon.

(d). Larger, ♂ F 12 mm. and brighter: markings as narrow.

Sub-sp. ***diana** Evans: ♂ N. Kanara: type B.M.
B.M. 36 ♂ 13 ♀ S. India (Coorg, Palnis, Nilgiris, N. Kanara). 2 ♀ Centr. Prov.

(e). As *diana*, markings broader and apically conjoined upf.

Sub-sp. **dushta** Fruhstorfer 1911: ♂ Annam: type B.M.
B.M. 1 ♂ Nepal. 3 ♂ 2 ♀ Sikkim. 1 ♂ Bhutan. 9 ♂ Assam. 32 ♂ 7 ♀ Burma. 4 ♂ 1 ♀ Siam. 2 ♂ 2 ♀ Indo-China. 10 ♂ 3 ♀ Hainan. 1 ♂ Pen Siam. 1 ♂ 1 ♀ Anamba Is. 1 ♂ 4 ♀ Malaya. 1 ♂ Banka. 18 ♂ 4 ♀ Sumatra.

(f). Small, ♂ F 10 mm. Like *satra*, markings broad and cuiller of clasp much wider than in other forms.

Sub-sp. **nina** Evans 1932: ♂ Andamans: type B.M.

B.M. 29 ♂ 20 ♀ Andamans. 4 ♂ 2 ♀ "Nicobars".
(g). ♂ F 13 mm. Like *dushta*, but markings broader.
Sub-sp. **yojana** Fruhstorfer 1911: ♂ Java: type B.M.
B.M. 27 ♂ 8 ♀ Java. 6 ♂ 1 ♀ Lombok. 1 ♂ Sumba. 3 ♂ 2 ♀ S. Flores. 3 ♂ Alor. 2 ♂ Palawan.

17a (16). Uncus with the rounded end surmounted by two divergent points on a short stalk.
17 (18). ♂ upf with the usual short brand over mid vein 1. Markings yellow. Upf cell with a narrow central dark streak from the base, not against the radius as usual. Uph band continues usually into space 6, spot in space 7 present or absent. Unh band defined by dark spots.
mara. 2 sub-species.
(a). ♂ F 14 mm. Paler.
Sub-sp. ***mara** Evans 1932: ♂ Sikkim: type B.M.
B.M. 1 ♂ 1 ♀ Kumaon. 7 ♂ 1 ♀ Sikkim. 1 ♂ 1 ♀ Assam.
(b). ♂ F 15 mm. Darker. Very like *confucius*.
Sub-sp. **kansa** nov: ♂ Kwei Chow: type B.M.
B.M. Only the type.

18 (17). ♂ upf without any trace of a brand. Markings yellow.
nesta. 2 sub-species.
(a). ♂ F 12 mm. Upf apical spots usually conjoined to the band. Uph band usually continued into space 6 and spot in space 7 conspicuous. Unh very variable: band may or may not contrast with the ground and is usually edged with black spots.
Sub-sp. ***nesta** Evans 1934: ♂ Sikkim: type B.M.
B.M. 27 ♂ 10 ♀ Sikkim. 1 ♂ Bhutan. 13 ♂ 2 ♀ Assam. 36 ♂ 8 ♀ Burma, to Mergui. 1 ♂ Siam. 2 ♀ Indo-China.
(b). ♂ F 13 mm. Upf apical spots separated from the band. Unh more uniform, not black-spotted.
Sub-sp. **netta** Evans 1934: ♂ Java: type B.M.
B.M. 13 ♂ 4 ♀ Java. 1 ♂ Lombok.

19a (16d). Uncus with sharply angled shoulders.
19 (20a). End of uncus deeply and narrowly excavate. Upf spots in spaces 4 and 5 conjoined to the band but separated from the apical spots.

mingo. 3 sub-species.

(a). ♂ F 12 mm. Markings yellow. Uph usually no spot in space 6. Unh darkened and band usually edged with black spots.

Sub-sp. ***ajax** Evans 1932: ♂ Karens, Burma: type B.M.

B.M. 6 ♂ 3 ♀ Assam. 34 ♂ 20 ♀ Burma (to Mergui). 4 ♂ 2 ♀ Siam. 2 ♂ Indo-China.

(b). ♂ F 13½ mm. Similar, but unh band not entering space 6 and not edged with black spots.

Sub-sp. **tanya** Fruhstorfer 1911: ♂ Java: type B.M.

B.M. 10 ♂ 1 ♀ Java.

(c). ♂ F 13 mm. Wings more produced and markings tawny. Uph band extends into space 6. Unh more or less darkened, not spotted. ♂ upf brand over vein 1 long and conspicuous.

Sub-sp. **mingo** Edwards 1866: ♂ "W. Virginia" (recte Philippines, fide Evans 1935, Stylops 4: 100).

Synonyms. *nitida* Mabille 1877: ♂ Philippines: type B.M. Fig Seitz, pl. 170i, ♀.

flavoguttata Plötz 1883: ♂ Luzon. Fig Swinhoe 1908.

B.M. 37 ♂ 4 ♀ Philippines (Luzon, Mindanao, Mindoro, W. Samar, etc.).

20a (19). End of uncus scalloped or crenulate between the sharply angled edges.

20 (21). Above, markings broad: upf spots in spaces 4 and 5 overlapping or contiguous with the apical spots. Uph band continued into space 6. Uncus comparatively narrow.

pava. 2 sub-species.

(a). ♂ F 15 mm. There appear to be two well-marked forms. DSF, unh dull dusky orange, markings faint and resembling *pseudomaesa.* WSF, yellow, more or less shaded and band indicated by conspicuous black dots.

Sub-sp. **pava** Fruhstorfer 1911: ♂ Formosa: type B.M. Fig Leech, pl. 40/14 ♂ as "*dara* var.".

B.M. 4 ♂ 4 ♀ S. India (Palnis, Travancore). 1 ♂ Mussoorie. 1 ♂ 2 ♀ Sikkim. 14 ♂ 4 ♀ Assam. 3 ♂ Burma (Karens, Ataran). 16 ♂ 1 ♀ Yunnan. 1 ♂ W. Szechwan. 1 ♂ Kwang Tung. 2 ♂ Hupeh. 3 ♂ 1 ♀ Formosa. 5 ♂ 1 ♀ Hainan. 1 ♀ Malaya.

(b). ♂ F 14 mm. Unh greener and duller. Above more tawny.

Sub-sp. **lesbia** Evans 1934: ♂ Celebes: type B.M.
B.M. 11 ♂ 1 ♀ Philippines (Mindanao, Mindoro, Luzon). 2 ♂ Celebes.

21 (20). Above markings narrower. Upf spots in spaces 4 and 5 much smaller and separated from the apical spots: a conspicuous dark bar from base in cell against the radius. Uph band not entering space 6: spot in space 7 conspicuous. Unh duller, no black spotting. ♂ F 14 mm.

lydia. 2 sub-species.
(a). Markings yellow. Unh spot in space 6 present.

Sub-sp. ***lydia** Evans 1934: ♂ Assam: type B.M. Fig Lep Ind, pl. 815/1 ♂ as *rectifasciata*.
B.M. 11 ♂ 6 ♀ Assam. 9 ♂ 4 ♀ Burma (to Karens). 1 ♂ W. Szechwan (Lou Tse Kiang). 2 ♂ 1 ♀ Indo-China.
(b). Markings tawny. Unh greenish: spot in space 6 absent.

Sub-sp. **fraseri** Evans 1934: ♂ Fraser's Hill, Malaya: type B.M.
B.M. 2 ♂ 2 ♀ type loc.

22a (16c). Uncus very broad, at least half as broad as long.
22 (23). End uncus excavate V-wise between angled shoulders. Small species, ♂ F 12–13 mm. Markings reddish tawny, darker than *omaha*, which it closely resembles. Unh the red band contrasting strongly with the dark ground, no black spotting and no red spot in space 6.

ganda. 2 sub-species.
(a). Markings darker and narrower: upf apical spots separate.

Sub-sp. ***ganda** Fruhstorfer 1911: ♂ Nias: type B.M.
Synonym. *lena* Evans 1934: ♂ Java: type B.M.
B.M. 7 ♂ Assam. 33 ♂ 7 ♀ Burma. 2 ♂ 1 ♀ Pen Siam. 1 ♀ Hainan. 12 ♂ 5 ♀ Malaya. 1 ♀ Banka. 31 ♂ 10 ♀ Sumatra. 18 ♂ 4 ♀ Nias. 34 ♂ 9 ♀ Java and Bali.
(b). Markings brighter and broader. Upf apical spots usually conjoined to the band.

Sub-sp. **marla** nov: ♂ Borneo: type B.M.
B.M. 12 ♂ 3 ♀ Borneo.

23 (22). End uncus scalloped between rounded shoulders. Large species, ♂ F 15 mm.: markings reddish tawny. Upf spots in spaces 4 and 5 generally contiguous with the band and separated from the apical spots. Uph band rarely enters space 6. Unh dark greenish: no black spots.

palnia. 2 sub-species.

(a). Above markings bright and comparatively broad.

Sub-sp. ***palnia** Evans 1914: ♂ Palni Hills: type B.M. Fig Lep Ind, pl. 814/2 ♂ as *dara*.

B.M. 28 ♂ 6 ♀ S. India (Nilgiris, Palnis, Animalais, Coorg, Shevaroys, Trevandrum). 27 ♂ 9 ♀ Sikkim. 1 ♀ Bhutan. 20 ♂ 7 ♀ Assam. 10 ♂ 5 ♀ Burma (to Ataran). 4 ♂ Siam. 2 ♂ W. Szechwan. 2 ♂ Hupeh. 2 ♂ Hainan. 3 ♂ Indo-China.

(b). Above markings dull and very narrow.

Sub-sp. **afer** Evans 1932: ♂ Sumatra: type B.M.

B.M. 1 ♂ 1 ♀ Sumatra.

24a (16b). Cuiller of clasp broad ended and furnished with a comb. Uncus broad as in *palnia* and *ganda*.

24b (26). ♂ upf with a brand as usual over mid vein 1. ♂ ♀ upf with spots as usual in spaces 4 and 5, which overlap the discal band, but are usually separate from the apical spots. Large species with tawny markings, and unh usually with dark veins crossing the band.

24 (25). Valva of clasp rounded before cuiller: end of uncus centrally excavate only. Unh dark russet brown markings conspicuous.

hetaerus. 3 sub-species.

(a). Excavation at centre of uncus end V-wise. ♂ F 16 mm.

Sub-sp. ***serina** Plötz 1883: ♂ "Mexico" (recte Java): copy of MS plate in B.M.

Synonyms. *chariyawa* Fruhstorfer 1911: ♀ Java: type B.M.

sravasta Fruhstorfer 1911: ♂ Nias.

rasana Fruhstorfer 1911: ♀ Palawan: type B.M.

B.M. 5 ♂ 1 ♀ Burma (Bassein, Tavoy, Mergui). 4 ♂ 4 ♀ Andamans. 1 ♂ Indo-China. 1 ♂ Malaya. 1 ♂ Sumatra. 4 ♂ Nias. 1 ♀ Sipora. 1 ♀ Banka. 3 ♂ 1 ♀ Java. 6 ♂ Borneo. 1 ♀ Palawan.

(b). Excavation at centre of uncus end scalloped. ♂ F 16 mm. Markings broader and yellower, but spots in spaces 4 and 5 upf smaller and more detached from the apical spots.

Sub-sp. **hetaerus** Mabille 1883: ♂ Philippines: type B.M. The figures in Seitz, pl. 170i are of *Oriens gola*.
B.M. 3 ♂ 4 ♀ Philippines. 1 ♂ Polillo.
(c). ♀ F 18 mm. Markings very broad: upf spots in spaces 4 and 5 conjoined to the apical spots.

Sub-sp. **dina** Evans 1934: ♀ Celebes: type B.M.
B.M. Only the type.

25 (24). Valva of clasp excavate before cuiller: entire end of uncus excavate between the angled shoulders. Unh greenish, markings dull and not dark-edged. ♂ F 15 mm.

tropica Plötz 1883: ♂ "Mexico" (recte Java). Fig Swinhoe 1908; Seitz. Name incorrectly used by Fruhstorfer and Evans for the species here called *confucius*.
B.M. 2 ♂ 2 ♀ Java.

26 (24b). ♂ upf with a broad black discal stigma. ♂ ♀ upf without spots in spaces 4 and 5 (resembling *purpura*): markings dark tawny. Unh dark reddish brown, band paler. ♂ F 15 mm. Uncus broadly scalloped between rounded shoulders.

fettingi. 2 sub-species.
(a). ♂ stigma broad and continuous. Unh discal band faint, nearly concolorous with the ground, except for the conspicuous spot in space 1c.

Sub-sp. **fettingi** Möschler 1878: ♂ Sumatra.
Synonyms. *euria* Plötz 1883: ♂ ? loc.: copy of unpublished plate in B.M.
pavor De Nicéville 1894: ♂ N.E. Sumatra: figured.
B.M. 13 ♂ 2 ♀ Sumatra.
(b). ♂ stigma reduced to an oval brand over mid vein 1 and small brands on either side of vein 2 and under vein 4, often very obscure. Unh discal band narrower, nearly as bright as the spot in space 1c, contrasting strongly with the dark ground.

Sub-sp. **orfitus** Mabille 1874: ♂ Java: type B.M. Fig Rhop Java; Seitz.
B.M. 31 ♂ 8 ♀ Java.

L.6. ARRHENES Mabille 1904: type *marnas* Felder: fixed by Evans 1934.
Synonym. *Arrhenella* Waterhouse 1937: to replace *Arrhenes*, considered, incorrectly, to be a synonym of *Ocybadistes* Heron.

1a (7). ♂ upf with a discal stigma from mid vein 1 to base vein 4.
1b (6). Above, markings tawny.
1c (3a). Uph with a spot in space 6.
1 (2). Uph spot in space 6 on the inner side of the discal band: cell spot conspicuous. Above tawny markings broad and bright: upf lowest apical spot in space 6 unusually elongate. Unh discal band often continued into space 7, crossed by dark veins and edged with black lines. ♂ F 16 mm. Closely resembles species of *Telicota*.
***floresia** Evans 1934: ♂ S. Flores: type B.M.
B.M. 1 ♂ Lombok. 1 ♂ 2 ♀ S. Flores. 1 ♂ Alor. 1 ♂ Adonara.

2 (1). Uph spot in space 6 small and placed against the middle of the spot in space 5. Unh veins undarkened and no spot in space 7. ♂ F 13–14 mm.
marnas. 3 sub-species.
(a). Very much redder, above and below.
Sub-sp. **jopas** Mabille 1891: ♂ Batchian.
B.M. 15 ♂ 9 ♀ Batchian. 2 ♂ 2 ♀ Obi. 1 ♂ 1 ♀ Morotai. 8 ♂ 2 ♀ Ternate. 11 ♂ 3 ♀ Halmaheira.
(b). Always yellower, but many S. Moluccan specimens are intermediate.
Sub-sp. **marnas** Felder 1860: ♂ Amboina: type B.M. Fig in Seitz.
Synonyms. *grandis* Mabille 1878: ♀ "Borneo" (? Amboina): type B.M.
dipavansa Fruhstorfer 1911: ♀ Waigou: type B.M.
simillima Rothschild 1915: ♀ Dutch New Guinea: type B.M.

B.M. 13 ♂ 5 ♀ Amboina. 15 ♂ 5 ♀ Buru. 12 ♂ 6 ♀ Ceram. 1 ♀ Goram Laut. 4 ♂ Teoor. 1 ♀ Kissoei. 7 ♂ 1 ♀ Misol. 2 ♂ 3 ♀ Waigou. 62 ♂ 23 ♀ New Guinea. 3 ♂ Jobi Is. 1 ♂ Roon Is. 6 ♂ 3 ♀ Dampier. 8 ♂ Fergusson Is. 3 ♂ 1 ♀ Goodenough Is. 9 ♂ 4 ♀ Sudest Is. 6 ♂ 1 ♀ St. Aignan. 9 ♂ 2 ♀ Admiralty Is. 5 ♂ 3 ♀ Rossel. 1 ♂ New Britain.

(c). Small, ♂ F 13 mm.: paler yellow: cilia conspicuously paler.

Sub-sp. **affinis** Waterhouse 1912: ♂ Kuranda. Fig Waterhouse & Lyell 1914 (fig 885) and Waterhouse 1932.

B.M. 3 ♂ 1 ♀ N. Queensland.

3a (1c). Uph no spot in space 6.

3b (5). Uph discal band more or less parallel to the termen, spots in spaces 3 and 4 completely overlapping. Unh veins darkened.

3 (4). ♂ upf the discal band irregular, the spot in space 1b slightly oblique and inwardly excavate, not appressed to the stigma: the outer edge of the band directed to the termen below the apex. ♂ F 15–16 mm. End uncus narrow.

dschilus. 3 sub-species.

(a). Unh outwardly darkened and band compact.

Sub-sp. **dschilus** Plötz 1885: ♂ New Guinea. Fig Swinhoe 1908 and Seitz.

Synonyms. *colattus* Plötz 1885: ♂ "Delagoa Bay": copy of unpublished plate in B.M.

klossii Rothschild 1915: ♂ Dutch New Guinea: type B.M.

B.M. 81 ♂ 20 ♀ New Guinea. 1 ♂ 1 ♀ Jobi Is. 5 ♂ Roon Is. 6 ♂ 3 ♀ Sudest Is. 6 ♂ 2 ♀ Dampier. 1 ♀ Fergusson Is.

(b). Similar, but markings reduced, particularly upf, where in extreme forms the discal band is reduced to widely separated spots.

Sub-sp. **decor** Evans 1934: ♂ Goodenough Is.: type B.M.

B.M. 5 ♂ 1 ♀ Goodenough Is. 1 ♀ Kiriwini. 3 ♂ Vulcan Is.

(c). Smaller, ♂ F 15 mm.: markings paler and broader. Unh usually uniform ochreous.

Sub-sp. **iris** Waterhouse 1932: ♂ Kuranda. Fig Waterhouse & Lyell 1914, figs 704 and 886; Waterhouse 1932.

B.M. 25 ♂ 19 ♀ N. Queensland.

4 (3). ♂ upf discal band regular and appressed to the straight stigma: the outer edge of the band directed to the costal side of the apex. Apex F produced: ♂ F 16 mm. Uncus end very broad. ♀ upf has a similar straighter band than in *dschilus*: cell unmarked except for a long upper streak instead of a double spot.

***elena** Evans 1934: ♂ Kapaur, Dutch N.G.: type B.M.
B.M. 5 ♂ Dutch New Guinea. 1 ♀ Papua.

5 (3b). Uph the discal band oblique, spots in spaces 3 and 4 only half overlapping, and the spot in space 4 nearly reaching the termen. Unh in ♂ rather dull ochreous with a conspicuous black tornus. Unh in ♀ dark brown, with the band white or pale yellow, divided by dark veins. ♂ F 15 mm.

***germana** Rothschild 1915: ♂ Snow Mts., Dutch N.G.: type B.M.
B.M. 9 ♂ Dutch New Guinea. 18 ♂ 5 ♀ German N.G. 21 ♂ 6 ♀ Papua.

6 (1b). Above, markings dull pale brown and narrow: ♂ stigma narrow and irregular. Unh dull ochreous with the yellow band extended on its inner edge into space 6. ♂ F 14 mm.

***tranquilla** Swinhoe 1905: ♂ Milne Bay: type B.M.
Synonym. *terranea* Fruhstorfer 1911: ♂ Dutch N.G.: type B.M.
B.M. 16 ♂ 4 ♀ Dutch N.G. 5 ♂ German N.G. 4 ♂ 1 ♀ Papua.

7 (1a). ♂ upf without a stigma or brand. Above resembles *marnas*: wings more produced: ♂ F 13 mm. Unh greenish brown, yellow band divided by dark veins and often continued into spaces 6 and 7.

***martha** Evans 1934: ♂ Setakwa Riv., Dutch N.G.: type B.M.
B.M. 4 ♂ 1 ♀ Dutch N.G. (Setakwa Riv., Humboldt Bay). 1 ♂ Papua (Hydrographer Mts.). 1 ♂ Goodenough Is.

L.7. TELICOTA Moore 1881: type *colon* Fabricius: specified by author as *augias* Linnaeus, which he had misidentified.

1a (3a). Uncus undivided. ♂ stigma at vein 1 central between base and termen: reaches the base of space 3.
1 (2). End of uncus narrow and flat. Upf tawny band not wider than the dark central band. ♂ stigma straight and broad. ♂ F 17 mm.

eurotas. 3 sub-species.
(a). Unh discal band more or less black-edged.
Sub-sp. **eurotas** Felder 1860: ♂ Amboina: type B.M. The figures in Seitz, pl. 171b, ♂, are of *augias florina*.
B.M. 1 ♂ 1 ♀ Batchian. 3 ♂ Amboina. 2 ♂ Sudest Is. 1 ♂ Aru. 1 ♂ New Guinea.
(b). Unh discal band not black-edged: faint on a glazed dull brownish ochreous ground.
Sub-sp. **eurychlora** Lower 1908: ♂ Ballina, N. S. Wales. Fig Waterhouse & Lyell 1914 and Waterhouse 1932.
B.M. 1 ♂ 1 ♀ N. S. Wales.
(c). Darker with narrower, straighter markings. Uph band extends into space 6. Unh markings more distinct and more orange.
Sub-sp. **laconia** Waterhouse 1937: ♂ Cairns.
B.M. None.

2 (1). End uncus broad, excavate. Upf tawny band wider than the central dark band. ♂ stigma narrow and curved outwards at vein 1. Unh ochreous, band outwardly edged with faint dark bars. Wings broader, ♂ F 18 mm.
doba nov: ♂ Aru, Dobo: C. B. Kloss: type B.M.
B.M. 3 ♂ 1 ♀ Aru.

3a (1a). Uncus divided to its base.
3b (6a). ♂ F origin of vein 3 very much nearer to the origin of vein 2 than to the origin of vein 4 and nearer to base of cell than is the origin of vein 11. ♂ upf stigma broad, reaches base of space 3: dark border at termen more or less penetrated by yellow veins.

3 (4a). Arms of uncus, seen ventrally, tapered towards the end to slender divergent tips. End of clasp broad and rounded, or slightly indented: cuiller short, not protruding. Upf at vein 1, stigma of ♂ and inner edge of yellow band in ♀, placed nearer to the base than to the termen.

colon. 9 sub-species.

(a). In the Indian region the spots in spaces 4 and 5 upf are small and well separated from the apical spots, generally midway between them and the termen. Specimens from Ceylon and the Andamans are very dark. ♂ F 15 mm.

Sub-sp. **kala** Evans 1934: ♂ Andamans: type B.M. Fig Woodhouse 1943, pl. 35/22, 23, ♂ ♀, as *augias*; Lep Ceylon, pl. 71/4 as *bambusae*.

B.M. 8 ♂ 2 ♀ Ceylon. 5 ♂ Andamans.

(b). The Indian form is palest of all: above yellow rather than tawny. Unh pale greenish with well-defined band in WSF: tending to uniform pale yellow in DSF. ♂ F 14½ mm.

Sub-sp. **colon** Fabricius 1775: ♂ "India": type Copenhagen (fide Corbet 1942: Proc. R. Ent. Soc. London, B, 11: 94). Fig Lep Ind as *augias*.

B.M. 16 ♂ 16 ♀ S. India. 4 ♂ 2 ♀ Centr. India. 2 ♂ 1 ♀ Kathiawar. 3 ♂ 1 ♀ Kumaon. 8 ♂ 4 ♀ United Prov. to Bengal. 2 ♂ 1 ♀ Sikkim.

(c). Intermediate between *colon* and *vaja*. Above tawny rather than yellow. Variable in size, ♂ F 13–15 mm.

Sub-sp. **stinga** nov: ♂ Malacca: J. Waterstradt: type B.M. Fig Distant 1886 and Seitz, as *augias*.

B.M. 2 ♂ 1 ♀ Assam. 19 ♂ Burma. 9 ♂ Siam (Bangkok, Renong). 8 ♂ 3 ♀ Formosa. 12 ♂ 1 ♀ Malaya.

(d). Specimens from the Malay Archipelago are generally larger, ♂ F 16 mm., brighter and ♂ upf the spots in spaces 4 and 5 are larger and generally conjoined to the apical spots.

Sub-sp. **vaja** Corbet 1942: ♂ Java: type B.M. Fig Rhop Java as *augias*.

B.M. 21 ♂ 4 ♀ Sumatra. 22 ♂ 12 ♀ Java. 11 ♂ 1 ♀ Philippines. 10 ♂ Celebes. 1 ♂ Sangir. 1 ♂ Sumbawa. 9 ♂

Sumba. 6 ♂ Flores. 4 ♂ 1 ♀ Alor. 1 ♀ Adonara. 8 ♂ 1 ♀ Timor.

(e). In the Moluccas there is a reversion to a dark form resembling *kala*, but the spots in spaces 4 and 5 upf are farther from the termen, and the dark border is more solid. ♂ F 15 mm.

Sub-sp. **amba** Evans 1934: ♂ Amboina: type B.M.

B.M. 2 ♂ 1 ♀ Halmaheira. 1 ♂ Obi. 1 ♂ Ternate. 8 ♂ 2 ♀ Amboina. 2 ♂ Ceram. 1 ♂ Kei Is.

(f). The N. Australian form is small, ♂ F 13 mm., resembling *colon* but more tawny. The dark border upf is always traversed by yellow veins. It grades into *vaja*.

Sub-sp. **argeus** Plötz 1883: ♂ Cape York. Fig Seitz; Waterhouse 1932.

B.M. 2 ♂ 1 ♀ Djampea. 2 ♂ 1 ♀ Kisser. 1 ♂ Taam. 1 ♂ 1 ♀ Larut. 1 ♂ Wetter. 1 ♂ Sermatta. 4 ♂ 2 ♀ Koer. 5 ♂ 5 ♀ Savu. 7 ♂ 7 ♀ Tenimber. 29 ♂ 9 ♀ N. and E. Australia (Darwin, Cape York to N. S. Wales).

(g). Specimens from the New Guinea area vary between a small form like *argeus*, but with more solid borders, and a large form (*vega*), ♂ F 15½ mm., intermediate between *amba* and *elsa*.

Sub-sp. **vega** nov: ♂ New Ireland: Feb. 1924: A. F. Eichhorn: type B.M.

B.M. 21 ♂ 3 ♀ New Guinea. 1 ♂ Vulcan Is. 2 ♂ Dampier. 4 ♂ New Britain. 2 ♂ 2 ♀ New Ireland. 2 ♂ 1 ♀ New Hanover. 1 ♂ 1 ♀ Duke of York Is.

(h). From St. Mathias Is. there is a very small, ♂ F 13 mm., square winged form, marked exactly as *argeus*.

Sub-sp. **zara** nov: ♂ St. Mathias: June 1923: A. F. Eichhorn: type B.M.

B.M. 8 ♂ 3 ♀ St. Mathias.

(i). Finally from the Solomon islands there is a considerably modified form. Large, ♂ 17½ mm., wings elongate, darker tawny. Upf stigma very broad, dark border solid. Unh band inconspicuous on a slightly darker ground. Uncus limbs narrower and longer.

Sub-sp. ***elsa** Evans 1934: ♂ Florida Is.: type B.M.

B.M. 40 ♂ 11 ♀ Solomons (all islands visited by A. S. Meek).

4a (3). Arms of uncus, seen ventrally, evenly tapered to parallel tips. Upf at vein 1, ♂ stigma and inner edge of yellow band in ♀, central between base and termen. ♂ apex F and tornus H more produced than usual. ♂ F 15 mm.
4 (5). Cuiller of clasp not protruding, valva bent inward and furnished with a dense comb. ♂ upf stigma broad: yellow band as broad as dark border.

laruta Evans 1934: ♂ Larut: type B.M.
B.M. 3 ♀ Tenimber. 2 ♂ 1 ♀ Selaru. 1 ♂ Letti. 2 ♂ 1 ♀ Larut.

5 (4). Cuiller of clasp projecting at back as a conspicuous crest, valva short and smooth: uncus arms slender. ♂ upf stigma narrower and dark border broader.

***lettina** Evans 1934: ♂ Letti Is.: type B.M.
B.M. 1 ♂ 1 ♀ Letti. 1 ♂ Tenimber. 1 ♂ Larut.

6a (3b). ♂ F origin of vein 3 not nearer to origin of vein 2 than to origin of vein 4, also farther from base than is the origin of vein 11.
6b (13a). ♂ upf lower end of stigma at vein 1, and ♀ inner edge of tawny band, central between termen and base: stigma broad, reaching to base of space 3.
6c (8a). Cuiller of clasp not protruding at all.
6 (7). Valva of clasp broad and tapered to a sharp point: cuiller vestigial. Upf inner edge of tawny band more irregular than usual. ♀ below, with a purple glaze. Large, ♂ F 18 mm.

***torsa** Evans 1934: ♂ Buru: type B.M.
B.M. 4 ♂ 3 ♀ Buru.

7 (6). Valva of clasp narrower, blunt ended.

augias. 8 sub-species.
(a). Wings produced, ♂ F 17 mm. Tawny areas broad, band upf joined to the apical spots and tending to penetrate the dark border: base of wing unshaded. Unh more or less tawny, band broad but inconspicuous. ♂ stigma dark.

Sub-sp. **augias** Linnaeus 1763: ♂ "India" (probably Java): type coll Linn Soc London: genitalia checked (see Corbet

1942: P. R. Ent Soc B, 11: 94). Fig by Donovan Ins Ind is unrecognisable.

Synonyms. *pheres* (Boisduval MS) Moore 1857 = *augias*. *puloa* Evans 1932: ♂ Pulo Laut: type B.M.

B.M. 1 ♂ Naga Hills (?). 1 ♂ Mergui, S. Burma. 1 ♂ Saigon. 6 ♂ 1 ♀ Malaya. 4 ♂ 1 ♀ Sumatra. 2 ♂ 3 ♀ Java. 1 ♂ 1 ♀ Banka. 20 ♂ 3 ♀ Borneo.

(b). Wings much more rounded, ♂ F 16 mm. Above dark areas broader. Unh more shaded and band more conspicuous.

Sub-sp. **bunga** Evans 1934: ♂ Nias: type B.M.

B.M. 25 ♂ 9 ♀ Nias. 1 ♂ Sumatra (?).

(c). Wing shape of *augias*, ♂ F 17 mm. Above tawny areas paler: upf with basal dark shading and stigma light grey. Unh shaded greenish brown, as in *bunga*.

Sub-sp. **florina** nov: ♂ S. Flores: Dec. 1896: type B.M.

B.M. 1 ♂ Java (?). 1 ♂ 2 ♀ Lombok. 2 ♂ 1 ♀ Sumba. 1 ♂ 2 ♀ S. Flores.

(d). Similar to *bunga*, but unh very much darker and band divided by dark veins.

Sub-sp. **pythias** Mabille 1878: ♂ Philippines: type B.M.

Synonym. *fruhstorferi* Seitz 1927: ♂ Philippines: figured.

B.M. 1 ♂ S. Burma. Victoria Point (?). 20 ♂ 5 ♀ Philippines (Mindoro, Mindanao, Luzon, Los Banos). 1 ♂ Borneo (?).

(e). A bright golden tawny form with broad markings as in *augias*, but wings less produced, ♂ F 17 mm. Unh band undivided by dark veins, faintly marked on the greenish tinted ground.

Sub-sp. **arula** Evans 1934: ♂ Aru: type B.M.

B.M. 10 ♂ 2 ♀ Aru.

(f). A paler, yellower form of *krefftii* with broad tawny areas. Upf band twice as broad as the dark border, which is more or less penetrated by yellow veins. ♂ F 15 mm.

Sub-sp. **argilus** Waterhouse 1933: ♂ Port Darwin.

B.M. 2 ♂ 1 ♀ Darwin. 1 ♂ Lizard Is.

(g). A small edition of *augias*, ♂ F 14½ mm. Unh yellow to reddish, band inconspicuous.

Sub-sp. **krefftii** Macleay 1866: ♂ Cape York. Fig Waterhouse & Lyell 1914 and Waterhouse 1932.
B.M. 25 ♂ 2 ♀ N. Queensland. 1 ♂ Port Albany. 4 ♂ Prince of Wales Is. 1 ♂ 1 ♀ Darnley Is. 1 ♂ Banks Is. 1 ♂ New Guinea (?).
(h). Large, ♂ F 18 mm. Above much darker with narrow tawny markings, very narrow and macular in ♀. Unh band well defined by dark edging on a greenish ground.

Sub-sp. **anisodesma** Lower 1911: ♂ Mackay. Fig Waterhouse & Lyell 1914 and Waterhouse 1932.
B.M. 7 ♂ 4 ♀ S. Queensland.

8a (6c). Cuiller of clasp more or less protruding.
8b (12). Cuiller not protruding beyond the valva.
8c (10a). Back of uncus without a protuberance.
8 (9). Projection of cuiller as a sharp triangular point very conspicuous: followed by a long curved valva.

linna nov. 5 sub-species.
(a). Generally resembles the *augias* or *ancilla* form flying with it. ♂ upf borders solid, stigma dark: ♀ with broader yellower markings. There are 3 forms of unh: typically yellow with the yellow band defined by large dark spots: the band narrow, crossed by dark veins and narrowly dark edged, the ground colour dark greenish brown: entirely ochreous with no dark veins, spots or dark lines. ♂ F 17 mm.

Sub-sp. **linna** nov: ♂ Sikkim: type B.M.
B.M. 41 ♂ 11 ♀ Sikkim. 18 ♂ 7 ♀ Assam. 15 ♂ 6 ♀ Burma. 5 ♂ 2 ♀ Siam.
(b). As *linna*, larger, ♂ F 18½ mm. and yellower. Unh varies as *linna* but to a lesser extent.

Sub-sp. **besta** nov: ♂ Hainan: type B.M.
B.M. 8 ♂ Hainan. 2 ♂ Kwang Tung. 3 ♂ Indo-China. 1 ♂ 1 ♀ Yunnan.
(c). Less heavily marked than *linna*: ♂ upf base of space 2 is yellow instead of black. Unh much less variable, ground colour only faintly darker than the band, no black veins and the dark edging faint. ♂ F 16 mm.

Sub-sp. **bina** nov: ♂ Sumatra: type B.M.
B.M. 6 ♂ 4 ♀ Malaya. 1 ♀ Lingga Is. 22 ♂ 12 ♀ Sumatra.

(d). Similar to *bina*, wings more produced and redder, particularly on underside. ♂ F 17 mm.

Sub-sp. **bactra** nov: ♂ Java: type B.M.

B.M. 11 ♂ 11 ♀ Java.

(e). Tawny areas much broader than in other sub-species. Uph discal band extends across space 6. Unh more uniformly ochreous, band only distinguished by black dots. Wing shape of *linna*. ♂ F 16 mm.

Sub-sp. **bodra** nov: ♂ Borneo: type B.M.

B.M. 17 ♂ 6 ♀ Borneo.

9 (8). Cuiller and valva of clasp sub-specifically very variable, but never as in *linna*.

ancilla. 11 sub-species.

(a). In the first 2 sub-species the cuiller protrudes as a blunt triangle: the valva is short and broad. The Ceylon form is bright tawny with solid borders and a dark stigma. Unh band broad on a greenish ground, undivided by dark veins, in the DSF: WSF narrower and black veined. ♂ F 16 mm.

Sub-sp. **lanka** Evans 1932: ♂ Ceylon: type B.M. Fig Woodhouse 1942 as *pythias lanka*.

13 ♂ 11 ♀ Ceylon.

(b). Unf black spotting at apex less developed and contrast between the seasonal forms is much greater. DSF ♂ unh may be plain pale yellow and upf the dark border may be traversed by yellow veins as in *colon*. ♂ F 15 mm.

Sub-sp. **bambusae** Moore 1878: ♂ Calcutta: type B.M.: figured. Fig Lep Ind, pl. 813/3 ♂ (♀ probably is *ohara*): Seitz, pl. 168h, ♂. Fig by Distant, pl. 35/12 ♀ probably is *ohara*.

B.M. 24 ♂ 22 ♀ S. India. 1 ♂ Centr. Prov. 7 ♂ 1 ♀ N.W. Himalayas (Murree to Kumaon). 11 ♂ 5 ♀ Bengal. 1 ♂ Orissa. 3 ♂ Sikkim. 4 ♂ 1 ♀ Assam. 12 ♂ 2 ♀ Burma (to Tavoy). 2 ♂ 2 ♀ Siam. 2 ♂ 2 ♀ Annam. 1 ♂ Malaya. 1 ♂ Nias. 1 ♂ Borneo (?).

(c). In the next 3 sub-species the end of the cuiller is blunt and rounded, its protrusion is not much more than an indentation between the cuiller and the valva, which is short and broad as in *bambusae*. The Chinese form is very different from *bambusae*, wings squarer, ♂ F 14½ mm., dark border upf generally penetrated by yellow veins, as in *colon*. Unh yellow and the yellow band outlined by black spots.

Sub-sp. **horisha** Evans 1934: ♂ Formosa: type B.M.

B.M. 14 ♂ 13 ♀ Formosa. 12 ♂ 12 ♀ Hainan. 2 ♂ 2 ♀ Japan. 6 ♂ 3 ♀ Fukien. 14 ♂ 2 ♀ Kwang Tung. 5 ♂ 3 ♀ Kiang Si. 4 ♂ 1 ♀ Kwang Si. 1 ♂ Tonkin.

(d). A larger, ♂ F 18 mm., much redder *bambusae*-like form. ♂ upf with solid black borders. Unh and unf with conspicuous black spots edging the discal band.

Sub-sp. ***santa** Evans 1934: ♂ Borneo: type B.M.

B.M. 25 ♂ 3 ♀ Borneo.

(e). Similar to *santa*, but ♂ upf the spots in spaces 4 and 5 are detached from the apical spots. Below very much darker greenish brown at apex F and on H: unh black edging to band absent, but veins across the band are black. ♂ F 17 mm.

Sub-sp. **minda** Evans 1934: ♂ Mindanao: type B.M.

B.M. Only the type.

(f). The form from the Timor area has the cuiller as in *horisha*, but the valva is more elongate, nearly as long as in *linna*. There is a great deal of variation in size, ♂ F 15–16 mm., as well as in appearance, typically like *minda* above: unh greenish, black edging of band faint. The ♀ has a tendency towards whitish instead of tawny markings and to a grey unh.

Sub-sp. **volens** nov: ♂ Timor: type B.M.

B.M. 5 ♂ 3 ♀ Java. 1 ♂ Borneo. 1 ♀ Lombok. 1 ♀ Sumba. 1 ♂ 1 ♀ Sumbawa. 1 ♂ 1 ♀ Alor. 2 ♀ Adonara. 1 ♂ Pura. 7 ♂ Timor. 1 ♂ 1 ♀ Wetter. 1 ♂ Kisser. 1 ♂ Oinanaisa. 1 ♂ Aru.

(g). A form with narrow dark red markings above and unh dark greenish brown with conspicuous black spots, as well as at apex unf. ♂ F 17 mm. The clasp resembles *bambusae*, but is narrower and furnished with a dense comb as in *laruta* and the next form, *baudina*.

Sub-sp. **lucca** Evans 1934: ♂ Amboina: type B.M.

B.M. 1 ♂ Amboina. 1 ♂ Ceram.

(h). A pale form with broad tawny areas and the dark border upf in ♂ traversed by tawny veins, resembling *horisha* and *argilus*. Unh as in *argilus*. ♂ F 15 mm. Valva with a comb as in *lucca*.

Sub-sp. **baudina** nov: ♂ Baudin Is.: J. J. Walker: type B.M.
B.M. 9 ♂ Baudin Is. 1 ♂ Queen's Inlet. 1 ♂ Cassini Is. 1 ♂ Parry Harbour. 3 ♂ 1 ♀ Port Darwin.

(i). In genitalia and general appearance the Australian form presents a reversion to *horisha*, with the wing shape of *bambusae*. Yellower and larger, ♂ F 16 mm., than *krefftii*. Unh greenish, with the band faintly defined.

Sub-sp. **ancilla** Herrich-Schäffer 1869: ♂ Rockhampton. Fig Seitz; Waterhouse 1932.
Synonym. *olivescens* Herrich-Schäffer 1869: ♀ ? loc.: figured. Fig Seitz.
B.M. 9 ♂ 5 ♀ Queensland. 17 ♂ 17 ♀ N. S. Wales.

(j). Dark, square winged. ♂ F 15 mm. Clasp as in *horisha*. ♂ above, tawny bands narrow: upf a black dash at base of cell, below which the entire basal area is black. Unh dark greenish brown. ♀ upf cell spot reduced to a dot, while the spots above vein 4 are absent or vestigial.

Sub-sp. **angiana** Evans 1934: ♂ Angi Lakes, Arfak Mts.: type B.M.
B.M. 12 ♂ 1 ♀ type loc.

(k). Tawny areas above brighter and broader, the black shading faint. Unh ochreous, band faintly defined. ♀ above as *angiana*: below lighter.

Sub-sp. **mamba** nov: ♂ Biagi, Mambare Riv., 5,000 ft.: A. S. Meek: type B.M.
B.M. 9 ♂ 5 ♀ Papua.

10a (8c). Back of uncus conspicuously expanded. Cuiller of clasp protruding as a sharp triangular point as in *linna*. Above tawny markings narrower than usual: spots in spaces 4 and 5 upf reduced. Valva furnished with a dense comb.

10 (11). Valva of clasp short and broad as in *ancilla bambusae*. Unh with the band broad, barely contrasting with the ochreous ground, more or less edged with dark spots or lines. ♂ F 16½ mm.

kaimana Evans 1934: ♂ Kai, New Guinea: type B.M.
B.M. 1 ♂ Amboina. 1 ♂ Aru. 2 ♂ Misol. 24 ♂ 5 ♀ New Guinea.

11 (10). Valva of clasp long as in *linna*. Tawny areas duller and narrower: unh band contrasting with the darker ground. ♂ F 17 mm.
vinta nov: ♂ Kapaur: W. Doherty: type B.M.
B.M. 10 ♂ 2 ♀ Dutch New Guinea.

12 (8b). Cuiller of clasp as long as the valva, giving the clasp a crested appearance, as in *ohara*. The darkest species in the genus. ♂ upf band one-fifth the width of the dark border, spots in spaces 4 and 5 vestigial: unh glazed greenish grey, no black edging to the band. ♀ with rather broader pale yellow markings above: unh much paler grey. ♂ F 16 mm.
***aroa** Evans 1934: ♂ Aroa River: type B.M.
B.M. 2 ♂ 4 ♀ New Guinea. 1 ♀ Misol.

13a (6b). ♂ upf lower end of stigma at vein 1, and in ♀ inner edge of discal band, nearer termen than base: stigma narrow, not reaching to base of space 3.
13b (18a). Clasp more or less crested, cuiller projecting out beyond the valva.
13 (14a). ♂ upf stigma placed centrally in the central dark band. A comparatively dark species: ♂ upf basal area darkened.
ohara. 9 sub-species.
(a). ♂ upf spots in spaces 4 and 5 more conjoined to the apical spots than in most of the other forms. Unh no trace of dark veins: varies from a conspicuously spotted form, as described for typical *linna* to an entirely unspotted form, as *linna* DSF. ♂ F 15 mm.
Sub-sp. **jix** nov: ♂ Sikkim, November: type B.M. ♀ fig as *bambusae* by Distant 1886 and Lep Ind, pl. 813/3a.
B.M. 22 ♂ 10 ♀ Sikkim. 10 ♂ 1 ♀ Assam. 7 ♂ 1 ♀ Burma. 1 ♂ Siam. 1 ♂ Indo-China. 9 ♂ 6 ♀ Malaya.
(b). Much darkened. ♂ upf with a dark dash in the cell. Unh ochreous brown: veins uph and unh dark. ♂ F 17 mm.

Sub-sp. **formosana** Fruhstorfer 1911: ♂ Formosa: type B.M.
B.M. 14 ♂ 5 ♀ Formosa. 1 ♂ 1 ♀ Hainan. 3 ♂ Hupeh.
(c). Conspicuously redder on both sides than *jix* and unh darker, with the veins faintly dark. ♂ F 17 mm.: wings more produced.

Sub-sp. **vedanga** nov: ♂ Java: type B.M. (specimen so labelled by Moore and the name published by him without description in 1857).
Synonym. *pythias* Mabille 1879 (Ann Soc Ent Belg 21: 38) ♂ Java: type B.M. A homonym of *pythias* Mabille 1878 (Pet Nouv Ent 2: 234).
B.M. 15 ♂ 15 ♀ Sumatra. 20 ♂ 17 ♀ Java. 1 ♂ Flores.
(d). A reversion to *jix* and only differing therefrom in the darker unh and more produced wings. ♂ F 15 mm.

Sub-sp. **jactus** nov: ♂ Kina Balu: type B.M.
B.M. 26 ♂ 3 ♀ Borneo.
(e). Resembles *jactus*, but unh is very dark green and the band is conspicuously dark veined. ♂ F 15 mm.

Sub-sp. **jania** nov: ♂ Mindanao: type B.M.
B.M. 1 ♂ 2 ♀ Palawan. 3 ♂ 1 ♀ Mindoro. 1 ♀ Polillo. 3 ♂ 1 ♀ Mindanao.
(f). Larger, ♂ F 18 mm., with narrower, yellower markings. Unh dark green, veins conspicuously dark. ♂ F 18 mm.

Sub-sp. **rahula** Fruhstorfer 1911: ♂ S. Celebes: type B.M.
B.M. 9 ♂ 10 ♀ Celebes.
(g). Like *jania*, darker, particularly the basal area upf in ♂, which is as dark as in *formosana*, but uph the band is not divided by dark veins.

Sub-sp. **iona** nov: ♂ Kezeli, Buru: type B.M.
B.M. 1 ♀ Obi. 1 ♂ 2 ♀ Halmaheira. 2 ♂ 2 ♀ Batchian. 2 ♀ Ternate. 1 ♀ Taam. 1 ♂ 1 ♀ Amboina. 4 ♂ 3 ♀ Buru. 1 ♂ Ceram.
(h). In the last 2 forms, the spots in spaces 4 and 5 upf are much reduced, sometimes vestigial: all the tawny markings are narrower. Unh dark greenish brown band narrow and divided by dark veins. ♂ F 17 mm.

Sub-sp. **ixion** nov: ♂ Upper Aroa River: A. S. Meek: type B.M.
B.M. 10 ♂ 2 ♀ New Guinea. 1 ♂ Dampier. 2 ♂ Goodenough Is. 2 ♂ New Britain.

(i). Like *ixion*, larger, ♂ F 18 mm.: tawny areas darker and duller. Unh dark brown, band macular.

Sub-sp. **ohara** Plötz 1883: ♂ Cape York. Fig Seitz; Waterhouse & Lyell 1914; Waterhouse 1932.

B.M. 14 ♂ 5 ♀ N. Queensland.

14a (13). ♂ upf the stigma placed more along the outer edge of the dark central band.

14b (17). Ends of limbs of uncus, seen from the side, pointed. Clasp very variable sub-specifically, so that on the basis of the genitalia *ohara* and its allies are difficult to separate.

14 (15a). Uph and unh the tawny band narrow and divided by dark veins conspicuously.

kezia nov. 2 sub-species.

(a). Smaller, ♂ F 15–17 mm. ♀ markings upf confluent.

Sub-sp. **kezia** nov: ♂ Mt. Mado, Buru: type B.M.

B.M. 6 ♂ 3 ♀ Buru. 2 ♂ Mefor Is. 3 ♂ Schouten Is. 8 ♂ New Guinea. 2 ♂ Dampier. 3 ♂ Vulcan Is. 1 ♂ Woodlark Is. 1 ♂ 1 ♀ St. Aignan. 1 ♀ Sudest Is. 1 ♂ 1 ♀ Goodenough Is.

(b). Larger, ♂ F 18–20 mm. Darker and markings narrower. ♀ above markings small and macular, tending to become obsolete towards apex upf.

Sub-sp. **lenna** nov: ♂ Talesea, New Britain: A. F. Eichhorn: type B.M.

B.M. 1 ♂ 2 ♀ Rook Is. (intermediate). 3 ♂ 3 ♀ New Britain. 2 ♂ New Hanover. 1 ♂ New Ireland. 1 ♂ Witu Is.

15a (14). Uph and unh the tawny band not conspicuously divided by dark veins.

15 (16). ♂ with comparatively broad markings: apex F more rounded: stigma dark.

ternatensis. 10 sub-species.

(a). ♂ upf yellow band wider than the dark central or outer band: spots in spaces 4 and 5 completely conjoined to the band. Unh band contrasting only faintly with the similarly coloured ground, black edging faint. ♂ F 17 mm.

Sub-sp. **testa** Evans 1934: ♂ S. Celebes: type B.M.

B.M. 25 ♂ 8 ♀ Celebes.

(b). Very similar, larger, ♂ F 17½ mm., yellow areas still wider. Upf outer dark band as narrow as the dark central band.

Sub-sp. **ranga** nov: ♂ Sangir: W. Doherty: type B.M.
B.M. 6 ♂ Sangir. 2 ♂ 1 ♀ Talaut. 1 ♂ Siao. 2 ♂ 1 ♀ Salayer.

(c). Smaller, ♂ F 16½ mm. and darker: upf base more shaded and a dark dash present in the cell. Unh greenish brown and the band indistinctly cut by dark veins.

Sub-sp. **sula** nov: ♂ Sula Mangoli: W. Doherty: type B.M.
B.M. 7 ♂ 2 ♀ Sula Mangoli. 8 ♂ 1 ♀ Sula Besi.

(d). The largest form, ♂ F 20 mm. Bright tawny: upf basal area unshaded. Below, black spotting conspicuous and ground unh slightly darkened. Cuiller of clasp sharply pointed as in *moorei*.

Sub-sp. **ternatensis** Swinhoe 1907: ♂ Ternate: type B.M.
Fig Swinhoe 1908; Seitz.
Synonym. *obiensis* Fruhstorfer 1911: ♀ Obi: type B.M.
B.M. 27 ♂ 7 ♀ Batchian. 2 ♂ 1 ♀ Ternate. 5 ♂ 3 ♀ Obi. 4 ♂ 1 ♀ Morotai. 6 ♂ 4 ♀ Halmaheira.

(e). A tawnier and rounder winged edition of *testa*. Upf base of space 3 darkened. Unh band conspicuously defined by black spots on a greenish ground. ♂ F 17 mm.

Sub-sp. **festa** Evans 1934: ♂ Amboina: type B.M.
B.M. 6 ♂ 3 ♀ Amboina. 7 ♂ 2 ♀ Ceram. 1 ♂ Saparoea. 8 ♂ Teoor.

(f). Above, with the dark borders very narrow, inwardly deeply indented and traversed by yellow veins. ♂ F 17 mm.

Sub-sp. **hesta** Evans 1934: ♂ Buru: type B.M.
B.M. 5 ♂ 2 ♀ Buru.

(g). Above, very like *ternatensis*, but smaller, ♂ F 18 mm. Upf spots in spaces 4 and 5 just touching the apical spots or detached. Unh uniformly ochreous, the broad band invisible or faintly indicated by black edging.

Sub-sp. **aruba** nov: ♂ Aru: type B.M.
B.M. 8 ♂ Aru.

(h). As *aruba*, but unh more strongly marked usually and the band narrower, black spotting intense or absent, ground colour more or less darkened. ♂ F 17–18 mm.

Sub-sp. **moorei** Rothschild 1915: ♂ Dutch New Guinea: type B.M.
B.M. 3 ♂ Waigou. 21 ♂ 1 ♀ New Guinea.
(i). In the Solomons, the spots in spaces 4 and 5 upf are conjoined to the apical spots. Unh band conspicuous, black-edged on a very much darker ground. ♂ F 18 mm.

Sub-sp. **solva** nov: ♂ Florida Is.: A. S. Meek: type B.M.
B.M. 53 ♂ 21 ♀ Solomons (all islands).
(j). A small, pale edition of *solva* with squarer wings. ♂ F 15 mm. Clasp with tip of cuiller rounded, as in *testa*.

Sub-sp. **fenia** nov: ♂ Feni, New Ireland: A. F. Eichhorn: type B.M.
B.M. 3 ♂ New Ireland. 3 ♂ Witu. 2 ♂ St. Mathias. 1 ♂ Squally Is.

16 (15). ♂ upf with narrow markings: band narrower than the dark border: spots in spaces 4 and 5 just touching the apical spots. Wings produced, ♂ F 15 mm. Unh typically reddish ochreous, band faint, black edging rarely present. Limbs of uncus slender: tip of cuiller rounded. Stigma grey.

sadra nov: ♂ New Guinea: type B.M.
B.M. 1 ♂ Waigou. 14 ♂ New Guinea.

17 (14b). Ends of limbs of uncus, seen from the side, concave. Cuiller of clasp bent forward, instead of backward or straight as usual. Above, like *ternatensis fenia*, wings more produced, ♂ F 16 mm. ♂ upf tawny band as broad as the dark border. Unh band faintly black-edged on a slightly darker ground.

gervasa nov: ♂ Duke of York Is.: type B.M.
B.M. 3 ♂ New Guinea. 6 ♂ 3 ♀ Rook Is. 3 ♂ Duke of York Is. 3 ♂ 6 ♀ New Hanover. 7 ♂ 2 ♀ New Britain. 1 ♂ Witu.

18a (13b). Cuiller of clasp shorter than the valva.
18 (19a). Cuiller not projecting at all, back of clasp rounded as in *colon* and *augias*. Comparatively large, ♂ F 18 mm. Above identical with *ternatensis moorei*, but the spots in spaces 4 and 5 are just detached from the

band and the apical spots. Below like *moorei*, but the apical area unf is duskier, sometimes almost black.

subha Fruhstorfer 1911: ♂ Fergusson Is.: type B.M.
Synonym. *kiriwinia* Swinhoe 1917: ♂ Kiriwini Is.: type B.M.
B.M. 1 ♂ Waigou. 26 ♂ 3 ♀ New Guinea. 4 ♂ 1 ♀ Fergusson Is. 2 ♂ 1 ♀ Goodenough Is. 2 ♂ Kiriwini Is. 8 ♂ Dampier. 4 ♂ Vulcan Is. 4 ♂ 1 ♀ New Britain. 2 ♂ 4 ♀ New Ireland. 2 ♂ 1 ♀ Witu.

19a (18). End of clasp more or less indented at junction of cuiller and valva, as in *ancilla*. Small species, ♂ F14–16 mm.
19b (21a). Unf apical half of termen ochreous or reddish.
19 (20). Unh ochreous.

mesoptis. 4 sub-species.
(a). Uncus limbs, seen ventrally, bowed together, thin and narrow. Unh black spotting pronounced. Smaller, ♂ F 14 mm.
Sub-sp. **halma** Evans 1934: ♂ Batchian: type B.M.
B.M. 1 ♂ Flores. 30 ♂ 3 ♀ Batchian. 5 ♂ 1 ♀ Halmaheira. 3 ♂ 1 ♀ Obi. 2 ♂ 1 ♀ Ternate.
(b). Uncus limbs, seen ventrally, inwardly straight and divergent, broad, gradually tapering towards end. Above tawny markings comparatively broad. Unh band broad, barely contrasting with the ground, more or less black-edged. ♂ F 15 mm.
Sub-sp. **mesoptis** Lower 1911: ♂ Kuranda. Fig Waterhouse 1932: Fig in Seitz as *moseleyi*, pl. 169i.
B.M. 16 ♂ 6 ♀ Kei Is. 12 ♂ 10 ♀ Aru. 25 ♂ 8 ♀ N. Queensland.
(c). Generally darker, above and below, and tawny markings narrower.
Sub-sp. **affinis** Rothschild 1915: ♂ Dutch New Guinea: type B.M.
B.M. 12 ♂ Misol. 1 ♂ 1 ♀ Waigou. 35 ♂ 8 ♀ New Guinea. 3 ♂ 1 ♀ Vulcan Is.
(d). ♂ F 16 mm. Unh dark greenish ochreous with the band narrow and conspicuously divided by dark veins.
Sub-sp. **cadmus** Evans 1934: ♂ Goodenough Is.: type B.M.
B.M. 5 ♂ 2 ♀ Goodenough Is. 1 ♀ Fergusson Is.

20 (19). Unh dull dark red, band inconspicuous, faintly black-edged. Genitalia as in *mesoptis*. Marking narrower. ♂ F 15 mm.

brachydesma Lower 1908: ♂ Kuranda. Fig Waterhouse 1932.

B.M. 6 ♂ 2 ♀ N. Queensland. 1 ♂ Aru. 2 ♂ 2 ♀ New Guinea (may be varieties of *mesoptis*).

21a (19b). Unf entire termen black and often so on unh.

21 (22). Genitalia of *mesoptis*, which it resembles exactly above. Unh darkened, band sharply defined on both sides. ♂ F 15 mm.

***paceka** Fruhstorfer 1911: ♂ Dutch New Guinea: type B.M. Fig Seitz as *hypomelaena*.

B.M. 15 ♂ 8 ♀ Dutch New Guinea. 2 ♂ 1 ♀ German New Guinea.

22 (21). Genitalia of *halma*: uncus limbs slender, narrow and bowed together. Smaller, ♂ F 14 mm.

melanion. 2 sub-species.

(a). Unh entirely pale sulphur yellow, except for a narrow black termen: band invisible. Upf tawny areas broad, central band twice as wide as the dark border.

Sub-sp. **godiva** Evans 1934: ♂ Aru: type B.M.

B.M. 6 ♂ 7 ♀ Aru.

(b). Unh darker ochreous, outer edge of band with large black spots, which may become confluent as a broad black border. ♂ upf tawny band no wider than the dark border.

Sub-sp. **melanion** Mabille 1878: ♀ Oceania: type B.M.

Synonyms. *suffusus* Mabille 1904: ♂ "Australia": type B.M.

dhamika Fruhstorfer 1911: ♂ Waigou: type B.M.

B.M. 1 ♂ 1 ♀ Waigou. 46 ♂ 13 ♀ New Guinea.

L.8. CEPHRENES Waterhouse & Lyell 1914: type *augiades* Felder: specified by authors as *sperthias* Felder, which is a sub-species of *augiades*.

Synonym. *Corone* Mabille 1904: type *augiades* Felder: sole species included was *ismenoides* Mabille, a synonym of *sperthias* Felder: *Corone* is a homonym by Kemp 1829.

1 (2a). Unh tornus undarkened. End of uncus tridentate.
chrysozona. 7 sub-species.

(a). ♂ upf central dark band solid throughout. Above very variable in respect of the width of the tawny markings, which may, particularly in the ♀, be suffused with dark scaling. Unh varying from yellow to ochreous brown in the ♂, while in the ♀ it has often a slaty glaze: band generally defined by dark spots, which may be absent: the veins crossing the band may be unmarked or darkened. ♂ F 17–20 mm.

Sub-sp. **oceanica** Mabille 1904: ♂ "Oceania" (probably Assam): type B.M. (genitalia confirmatory of identity).
Synonymy. *palmarum* Moore 1878: ♂ Calcutta: type B.M.: figured. Fig Lep Ind. Homonym by Felder 1862. *hainanum* Sonan 1938: ♂ Hainan: figured.
B.M. 5 ♂ 5 ♀ Bengal. 2 ♂ Sikkim. 8 ♂ Assam. 6 ♂ 5 ♀ Burma (to Mergui). 1 ♂ Andamans. 1 ♂ Yunnan. 2 ♂ 1 ♀ Indo-China. 3 ♂ 3 ♀ Hainan.

(b). ♂ upf a more or less pronounced tendency for the upper part of the dark central band to be blurred. Less variable: unh veins always dark and band edged with black spots: in ♀ usually glazed. ♂ F 17–19 mm.

Sub-sp. **niasica** Plötz 1886: ♂ Nias. Fig Rhop Java as *augiades*; Seitz as *palmarum*.
Synonym. *raktaja* Fruhstorfer 1911: ♂ Java: type B.M.
B.M. 1 ♂ 1 ♀ Malaya. 7 ♂ 1 ♀ Sumatra. 3 ♂ 2 ♀ Nias. 1 ♀ Banka. 1 ♂ Sipora. 10 ♂ 11 ♀ Java.

(c). ♂ upf lower part of dark central band obsolete, upper part more or less blurred, dark border solid. ♀ upf markings broad and clear yellow, spots in cell and space 2 overlap. Unh ♂ and ♀ ochreous, band well defined by dark edging and cut by dark veins. ♂ F 17–19 mm.

Sub-sp. **nicobarica** Evans 1932: ♂ Car Nicobar: type B.M.
B.M. 22 ♂ 21 ♀ Car Nicobar. 8 ♂ Centr. Nicobars. 1 ♂ 1 ♀ Great Nicobar.

(d). ♂ upf central dark band vestigial, dark border solid. Unh not so well marked as *niasica*. ♂ F 17 mm.

Sub-sp. **kliana** Evans 1934: ♂ Borneo: type B.M.
B.M. 22 ♂ 8 ♀ Borneo. 1 ♂ Natuna. 1 ♂ Palawan.

(e). ♂ upf central dark band obsolete and dark border more or less penetrated by yellow veins. ♂ F 17–20 mm.

Sub-sp. **kayapu** Doherty 1891: ♀ Engano: type B.M.

Synonym. *baweana* Fruhstorfer 1911: ♂ Bawean: type B.M.

B.M. 5 ♂ 2 ♀ Engano. 6 ♂ 1 ♀ Bawean.

(f). ♂ upf central black band well developed, as in *niasica*, but the spots in spaces 4 and 5 are more detached. ♂ F 18 mm.

Sub-sp. **chrysozona** Plötz 1883: ♂ Philippines. Fig Swinhoe 1908; Seitz; Semper 1892.

Synonym. *negrosiana* Fruhstorfer 1911: ♂ Negros. Fig in Seitz.

B.M. 5 ♂ 2 ♀ Philippines. 2 ♂ Mindanao. 1 ♂ 1 ♀ Polillo. 1 ♂ 1 ♀ Luzon.

(g). Resembles *kliana*, but is larger, ♂ F 18–20 mm.

Sub-sp. **lompa** Evans 1934: ♂ Celebes: type B.M.

B.M. 2 ♂ 3 ♀ Celebes.

2a (1). ♂ unh tornus usually conspicuously darkened.

2 (3a). End of uncus tridentate. ♂ ♀ alike. Upf tawny band broad, more or less penetrating the dark border. Unh with a greenish shimmer, band defined by black dashes. ♂ F 20 mm.

trichopepla Lower 1908: ♂ Mackay. Fig Waterhouse 1932.

B.M. 15 ♂ 14 ♀ N. Queensland.

3a (2). End of uncus bidentate. ♂ ♀ upf dark border solid.

3 (4a). Clasps symmetrical and not excavate at ends. ♂ unf with a dark bar at end of cell. ♀ upf without well-marked spots in spaces 4 and 5 generally.

augiades. 10 sub-species.

(a). ♂ F 18 mm. ♂ upf central tawny area very broad, reaching to bases of spaces 2 and 3: unh like typical *augiades*. ♀ unf spots in cell and space 2 overlap: unh with a purple gloss.

Sub-sp. **tenimbra** Evans 1935: ♂ Tenimber: type B.M.

B.M. 4 ♂ 2 ♀ Tenimber. 2 ♀ Selaru.

(b). ♂ F 20 mm. Resembles *augiades*, but in ♂ upf tawny area very broad as in *tenimbra*: below, black veins and black spotting much more conspicuous than usual.

Sub-sp. **tara** Evans 1935: ♂ Batchian: type B.M.
B.M. 9 ♂ Batchian.
(c). ♂ F 20 mm. ♂ upf tawny spot in space 2 overlaps the cell spot and unf reaches base of space 2: unh tawny, more or less shaded, yellow band edged with black spots and crossed by dark veins. ♀ with comparatively broad and complete markings: unf spot in space 2 overlaps the cell spot.

Sub-sp. **augiades** Felder 1860: ♂ Amboina: type B.M. Fig Felder 1867.
Synonyms. *acalle* Hopffer 1874: ♀ Celebes. The description can only apply to ♀ *augiades*: Seitz's figures, pl. 172b, are incorrect, the first and last are *chrysozona* ♀ from Java or Borneo, the middle fig is of *Sabera kolbei* ♂.
macleayi Plötz 1883: ♀ Amboina: copy unpublished plate in B.M.
B.M. 3 ♂ Celebes. 22 ♂ 6 ♀ Amboina. 11 ♂ 8 ♀ Ceram. 1 ♂ Gisser.
(d). ♂ with markings more or less intermediate between *augiades* and *sperthias*, except for one peculiarity, which is shared by 2 ♂ from Tugela, Solomons and 1 ♂ "Mt. Mata, Celebes" (loc. doubtful), that is on upf no spot in space 5, but spot in space 4 is inwardly elongate, extending to the middle of the spot in space 3. ♀ black with very faint shaded markings as in dark forms of *sperthias* ♀, but unf the spots in space 2 and the cell overlap, whereas in *sperthias* they are wide apart. ♂ F 22 mm.

Sub-sp. **burua** Evans 1935: ♂ Buru: type B.M.
B.M. 3 ♂ 2 ♀ Buru (1 ♀ from Mt. Mada, possibly the Mt. Mata of the Celebes specimen).
(e). ♂ above with rather narrow markings nearer to *sperthias* than *augiades*. Unh peculiar: dark ferruginous with a suffused indistinct yellow band, ending in a clear yellow area in spaces 1b and 1c. ♂ F 21 mm.

Sub-sp. **arua** Evans 1935: ♂ Aru: type B.M.
B.M. 2 ♂ Aru.
(f). ♂ above with narrower markings than in any other form: upf band much narrower than the dark border or the dark central band: unh ferruginous, band narrow, black-edged. In ♀ markings small but clear above: unh purple brown, band very faint. ♂ F 18–20 mm.

Sub-sp. **bruno** Evans 1935: ♂ Astrolabe Bay: type B.M.
B.M. 3 ♂ 2 ♀ Dutch New Guinea (Kapaur, Humboldt Bay). 9 ♂ 8 ♀ Astrolabe Bay.

(g). Typical *sperthias* has the band upf as wide as the dark border in the ♂, as in *augiades*, but the spot in space 2 has its inner edge in line with the outer edge of the cell spot and does not overlap it: unh ferruginous with the yellow band not black-edged. The ♀ has blue thoracic clothing above and grades from an entirely black form, prevalent in N. Queensland, to a form with well-marked small ochreous spots, prevalent in Sydney: unf with the cell spot widely separated from the discal spots: unh purple brown with the band faint or absent. ♂ F 20 mm.

Sub-sp. **sperthias** Felder 1862: ♀ Sydney. Fig Waterhouse & Lyell 1914; Waterhouse 1932; Seitz.
Synonyms. *palmarum* (Scott MS) Felder 1862=*sperthias*.
ulama Butler 1870: ♀ Australia: type B.M.
ismenoides Mabille 1878: ♀ Australia: type B.M.
B.M. 18 ♂ 19 ♀ N. Queensland. 6 ♂ 6 ♀ S. Queensland. 18 ♂ 16 ♀ N. S. Wales.

(h). The form in the Louisades is large, ♂ F 22 mm. with broad markings particularly in the ♀, as large as in *augiades*. Unh in ♂ with black edging to the band: ♀ ferruginous to purple brown, with the band well marked.

Sub-sp. **meeki** Evans 1935: ♂ Woodlark Is.: type B.M.
B.M. 3 ♂ Woodlark Is. 1 ♂ 4 ♀ Rossell. 2 ♂ 2 ♀ St. Aignan. 2 ♀ Sudest Is.

(i). In the Bismarcks the ♂ resembles *sperthias* above, but the spots in spaces 4 and 5 are better developed and conjoined to the apical spots: unh ochreous with the band black-edged. ♀ above with small well-marked spots: unh brownish or greenish with well-marked small spots. ♂ F 20 mm.

Sub-sp. **websteri** Evans 1935: ♂ New Britain: type B.M.
B.M. 2 ♂ 1 ♀ British New Guinea (intermediate to *bruno*). 1 ♂ 2 ♀ New Britain. 3 ♂ 8 ♀ New Ireland. 1 ♂ 2 ♀ Witu. 1 ♂ Duke of York Is. 1 ♀ Rendova, Solomons.

(j). ♂, except for being darker below, exactly like *burua*. ♀ above black with a purple gloss, markings almost obsolete: unf with the discal tawny markings exactly as in *burua*, the cell spot overlapped by the spot in space 2: unh (and apex unf) dark ferruginous without any trace of a band. ♂ F 22, ♀ 24 mm.

Sub-sp. **tugela** nov: ♂ Tugela Is., Solomons: Woodford: type B.M.
B.M. 2 ♂ 1 ♀ type loc.

4a (3). Clasps not as in *augiades*.
4 (5). Clasps asymmetric, left clasp as in *augiades*, right clasp deeply excavate at end as in *moseleyi*. Much smaller, ♂ F 15 mm. ♂ upf with central dark band narrow and continuous, spots in spaces 4 and 5 well marked.

carna. 3 sub-species.
(a). ♂ upf base of space 2 tawny, spots in spaces 4 and 5 detached. Unh reddish brown, ochreous band black-edged and cut by black veins. Darker and redder.

Sub-sp. **carna** Evans 1934: ♂ Obi: type B.M.
B.M. Only the type.
(b). ♂ upf markings broader, spots in spaces 4 and 5 conjoined to the apical and discal spots. Unh pale greenish ochreous: pale band indicated by a few dark dashes.

Sub-sp. **augiana** Evans 1934: ♂ Aru: type B.M.
B.M. 2 ♂ Aru.
(c). ♂ upf intermediate between *carna* and *augiana*. Unh the band well defined and divided by dark veins.

Sub-sp. ***augusta** Evans 1934: ♂ Collingwood Bay, New Guinea: type B.M.
B.M. 4 ♂ New Guinea (Type: Utakwa Riv.: Bulolo: German N.G.).

5 (4). Clasps symmetrical, deeply excavate at end. ♂ F 17–18 mm. ♂ unf dark bar end cell absent or vestigial: upf central dark band usually continuous: inner edge of spot in space 2 in line with outer edge of cell spot. ♀ unf cell spot and spot in space 2 widely separated.

moseleyi. 2 sub-species.
(a). ♂ upf spots in spaces 4 and 5 usually well marked: uph discal band broad: unh marked as *augiades* from Amboina. ♀ much more like the ♂ of *augiades*, markings generally narrower: unh much lighter than in *augiades*,

often with a greenish glaze, band yellow, broad and black-edged. Much more constant than *augiades*.

Sub-sp. ***moseleyi** Butler 1884: ♀ Kei Is.: type B.M. The fig in Seitz is of *Telicota mesoptis*.

B.M. 5 ♂ 4 ♀ Tenimber. 1 ♂ Babber. 1 ♂ Manovolka. 11 ♂ 7 ♀ Batchian. 11 ♂ 1 ♀ Amboina. 3 ♂ 1 ♀ Buru. 1 ♂ Ceram. 3 ♂ 5 ♀ Kei Is. 5 ♂ 2 ♀ Aru. 9 ♂ 11 ♀ New Guinea. 1 ♀ Schouten Is. 1 ♂ Fergusson Is. 1 ♀ Dampier. 3 ♀ St. Mathias. 1 ♂ 1 ♀ New Britain.

(b). Darker, particularly in ♀, where the markings above are narrow and sullied: unh dark greenish brown, band very narrow.

Sub-sp. **shortlandica** Swinhoe 1915: ♀ Shortland Is.: type B.M.

B.M. 6 ♂ 6 ♀ Ysabel. 1 ♂ 1 ♀ Guadalcanar. 1 ♂ Florida Is. 1 ♀ Malaita. 1 ♀ Rendova. 2 ♀ Shortland Is. 1 ♂ Vella Lavella.

L.9. PRUSIANA Evans 1937: type *prusias* Felder: fixed by author.

1 (2, 3). ♂ uph with the brand at base of space 6 not covered by a hair tuft: unf no speculum: upf scales of black central band not modified. Clasp acutely crested at back of cuiller. ♂ above ochreous areas light tawny: upf band broad and continuous, broader than outer dark band: uph with a continuous narrow black band along termen from vein 1 to vein 6. ♀ upf with spots in spaces 4 and 5. ♂ F 20 mm.

kuehni Plötz 1886: ♂ Celebes. Fig in Seitz.

Synonyms. *subrubra* Holland 1891: ♂ Celebes: figured. *simplex* Elwes & Edwards 1897: ♂ Celebes: figured. Fig in Seitz is of *insularis*.

B.M. 1 ♂ Pulo Laut (?). 21 ♂ 4 ♀ Celebes.

2 (1, 2). ♂ uph with a thin hair tuft from space 7 overlying the brand at base of space 6: unf no speculum: upf scales of central dark band in spaces 1b and 2 modified. Clasp not crested, back of cuiller rounded. ♂ upf band narrower and suffused tawny: uph entire tornal half of wing unmarked yellow. Very large ♂ F 25 mm.

hercules Mabille 1889: ♂ Celebes: unpublished fig of type in B.M.
Synonym. *androsthenes* Fruhstorfer: ♂ Celebes: type B.M.
B.M. 1 ♂ Celebes.

(1, 2). ♂ uph with a curved tuft from mid cell covering the brand at base of space 6: unf with a speculum mid space 1b: upf scales of black central band modified in space 1b: F termen centrally bowed. ♀ upf without a spot in space 5. Clasp slightly crested.

prusias. 3 sub-species.

(a). ♂ above exactly as *kuehni*, but uph the narrow dark band along the termen is absent (or nearly so) except for the large dark spot at end of space 1c.

Sub-sp. **insularis** Elwes & Edwards 1897: ♂ Pulo Laut: type B.M.: figured. Fig in Seitz as *insularis* and as *simplex*.
Synonym. *kreon* Fruhstorfer 1911: ♂ Borneo: type B.M.
B.M. 3 ♂ 1 ♀ Borneo.

(b). Varies between the broad-banded *insularis* and the narrow-banded *prusias*, but never as dark as *prusias*.

Sub-sp. **matinus** Fruhstorfer 1911: ♂ Luzon. Fig as *prusias* by Elwes & Edwards and Seitz.
Synonyms. *padhana* Fruhstorfer 1911: ♂ Bazilan: type B.M.
sariputra Fruhstorfer 1911: ♂ Palawan: type B.M.
7 ♂ 5 ♀ Palawan. 5 ♂ 4 ♀ Mindoro. 2 ♂ 1 ♀ Los Banos. 2 ♂ 3 ♀ Mindanao. 1 ♂ 1 ♀ Bazilan. 3 ♂ Panay. 1 ♂ Polillo. 14 ♂ 4 ♀ Luzon. 7 ♂ 5 ♀ "Philippines". 1 ♂ Celebes (original of Elwes & Edwards figure). 2 ♂ Sangir.

(c). ♂ upf band dark tawny, much narrower than the outer dark band: uph band broadly divided by dark veins. ♂ F 20 mm.

Sub-sp. **prusias** Felder 1861: ♂ Amboina: type B.M.
Synonyms. *specularis* Plötz 1883: ♂ Amboina: copy of unpublished fig in B.M.
batchiana Swinhoe 1905: ♂ Batchian: type B.M.
B.M. 9 ♂ 5 ♀ Celebes. 7 ♂ 3 ♀ Bangkei. 12 ♂ 4 ♀ Sula Is. 1 ♂ Teoor. 1 ♀ Salayer. 25 ♂ 11 ♀ N. Moluccas. 25 ♂ 8 ♀ S. Moluccas. 1 ♂ Kei Is. 1 ♂ 2 ♀ "New Guinea" (?).

L.10. PASTRIA Evans (page 41): type *pastria* Evans: fixed by author.

1 (2). ♂ above dark brown with narrow golden yellow markings: upf streak from base to mid dorsum, followed by a small spot in space 1b against vein 1: uph discal row of 4 spots in spaces 1c to 4 in a straight row. Below brown: apex F paler: unh central third crossed by a broad white band (4 mm.) from mid costa to mid dorsum, yellowish at costa, widening at lower end to full length of dorsum. ♂ F 17 mm.

***albimedia** Joicey & Talbot 1917: ♂ Wandammen Mts., Dutch New Guinea: type B.M.
B.M. 2 ♂ type loc.

2 (1). ♂ above rather pale brown with narrow pale yellow markings as in *albimedia*, but upf there are additional discal spots in spaces 2 and 3 and uph a faint spot in the cell: cilia H white. Unf brown, apex broadly and costa greenish grey, discal markings broader than above, confluent. Unh pale greenish grey, band from above only visible by transparency. ♂ F 17 mm. ♀ larger, F 19 mm., darker above and below in respect of ground and markings. Upf discal band extends to space 5 and faintly to space 8: large spot near end cell. Palpi below yellow, turning white basally: pectus and abdomen below of same colour as unh. Antennae chequered: club below whitish.

***pastria** nov: ♂ Mambare Riv.: type B.M.
B.M. 1 ♂ 1 ♀ (Mambare and St. Joseph Riv.), British New Guinea.

L.11. BANTA Evans (p. 41): type *banta* Evans: fixed by author.

Uph unmarked dark brown in all species.

1a (3). Unh white, with yellowish patches: outer border broad chocolate, deeply excavate in spaces 4 and 5 on the inner edge and on the outer edge with a whitish dot in each space along the termen: a large brown spot before end of cell and a similar spot below it in space 1c. Unf dark brown with conjoined white spots at the apex in spaces 6 to 8 and detached spots nearer the termen in spaces 4 and 5, followed by a white dot in each space along the termen.

1 (2). ♂ upf without any stigma or brand. H cilia at tornus narrowly orange. Upf with a sulphur yellow streak along the dorsum from base to middle, over the end of which there is a double spot in space 1b. Unf the spots in spaces 4 and 5 are conjoined and extended to the termen, forming a large quadrate white area. Unh dark markings rather blurred: spot on termen in space 5 much enlarged. ♂ F 20 mm.

banta nov: ♂ Angabunga affluent, St. Joseph River, Hydrographer Mts.: British New Guinea: 7,000 feet: Dec. 1924: A. S. Meek: type B.M.
B.M. 2 ♂ 1 ♀ type loc. 1 ♀ Biagi, Mambare Riv., 7,000 ft.

2 (1). ♂ upf with a broken black discal stigma from mid vein 1 to base vein 3. H cilia brown throughout. Upf the dorsal streak orange, surmounted at the end by a single lower orange spot in space 1b. Unf the spots in spaces 4 and 5 small, conjoined, not extended towards the termen. Unh markings sharp and all spots along termen small. ♂ F 18 mm.

fulvomargo Joicey & Noakes 1915: ♂ Angi Lakes, Arfak Mts., Dutch New Guinea: type B.M.: figured.
B.M. 2 ♂ 1 ♀ New Guinea.

3 (1a). Unh unmarked. Above dark brown with bases narrowly ferruginous: upf with similar discal scaling in spaces 1b and 2 in ♂, appearing as spots in ♀. ♂ upf with a dark broken discal stigma from mid vein 1 to base vein 4. Cilia brown. ♂ F 19 mm. Unf with large ochreous spots in cell and spaces 1b and 2. Very similar in appearance to *Mimene lysima*.

***anna** Evans 1935: ♂ Dutch New Guinea, between Geelvink and Humboldt Bays: type B.M.
B.M. 1 ♂ 1 ♀ type loc.

L.12. KOBRONA Evans 1934: type *kobros* Plötz: fixed by author.

All species have the usual tawny markings on both wings.

1a (8a). End of clasp excavate between 2 limbs and furnished with a dense comb, as in *Taractrocera*, but intensified.

1b (5a). ♂ upf with a continuous discal stigma.

1 (2a). End of uncus broad, V-wise: branches of clasp equal. ♂ upf band and stigma straight: spots in spaces 4 and 5 detached. Unf apex and unh, light ferruginous, bands yellow: unh no markings above vein 6: markings not black-edged. ♂ F 15 mm.

denva nov: ♂ Edie Creek, W. Herzog Mts., Central New Guinea: 6,100 ft.: early 1928: A. F. Eichhorn: type B.M.
B.M. 2 ♂ type loc.

2a (1). End of uncus very narrow, bidentate. ♂ upf band and stigma irregular: unh with markings above vein 6.

2 (3, 4). End of clasp slightly excavate between the two branches. Unh (and apex unf) markings edged with black lines, including 2 spots in space 7 and the cell spot.

pansa. 2 sub-species.

(a). Above markings darker tawny. Unf apex and unh with a strong dark purple gloss. ♂ F 14 mm.

Sub-sp. ***pansa** Evans 1934: ♂ Weylandt Mts., Dutch New Guinea: type B.M.
B.M. Only the type.

(b). Above markings lighter. Unf apex and unh, light brown with a faint purple glaze. ♂ F 15 mm.

Sub-sp. **panta** nov: ♂ Edie Creek, Central New Guinea: 6,000 ft.: Feb. 1935 : F. H. Taylor: type B.M.
B.M. 2 ♂ 2 ♀ type loc.

3 (2, 4). End of clasp more deeply excavate, the upper (dorsal) limb conspicuously longer than the lower limb. Smaller than *panta*, ♂ F 14 mm., otherwise inseparable.

edina nov: ♂ Edie Creek, Centr. New Guinea: 6,000 ft.: Feb. 1935: F. H. Taylor: type B.M.
B.M. 2 ♂ 1 ♀ type loc.

4 (2, 3). Clasp as in *edina*, but the lower (ventral) limb conspicuously longer than the upper limb. Above, with rather paler and broader markings than *edina*, cell spot prominent. Unf apex and unh darker brown, with a conspicuous pale purple gloss: unh markings not black-edged, a large outer yellow spot in space 7, the inner spot vestigial. ♂ F 14 mm.

vanda nov: ♂ Edie Creek, W. Herzog Mts., Centr. New Guinea: 6,000 ft.: early 1928: A. F. Eichhorn: type B.M.
B.M. Only the type.

5a (1b). ♂ without a discal stigma.

5b (7). ♂ upf with a long brand over vein 1.

5 (6). ♂ upf without any brands above that over vein 1. Above, yellow markings very broad: upf band as broad as the dark border: spots in spaces 4 and 5 conjoined to the band, but not to the apical spots: cell and costa yellow, as in *kobros*. Unh pale ochreous brown, band very faint, tornus dark brown as usual. Uncus as in *denva*, clasp as in *vanda*. ♂ F 14 mm.

croma nov: ♂ Zegeheme, Cromwell Mts., E. Finisterre Range, New Guinea: 4,800 ft.: June 1931: F. Shaw-Meyer: type B.M.
B.M. Only the type.

6 (5). ♂ upf with additional brands, above and below vein 2 and origin of vein 3. Very like *wama* in facies and genitalia. Upf markings dark and narrow, no spots in spaces 4 and 5. Unf cell spot and band wide apart, apex dark reddish brown. Unh markings narrow and obscure, except for the bright spot in space 1c, ground colour dark reddish brown, purple glossed. ♂ F 15 mm.

idea nov: ♂ Dutch New Guinea, 2 days N. of Fak-Fak: 1,700 ft.: Dec. 1907: A. F. Pratt: type B.M.
B.M. 1 ♂ type. 1 ♂ 3 ♀ Jobi Is. 1 ♂ Utakwa River.

7 (5b). Upf no secondary sexual characters. As *idea*, but smaller, ♂ F 14 mm. and markings above broader.

wama. 2 sub-species.

(a). Unh band vestigial, except for the spot in space 1c.

Sub-sp. **wama** Plötz 1885: Aru. Fig Swinhoe 1908 as "*wamba*". 1 ♂ Kei Is. 4 ♂ 2 ♀ Aru.

(b). Unh band generally conspicuous.

Sub-sp. **rudha** Fruhstorfer 1911: ♀ Dutch New Guinea: type B.M.

B.M. 2 ♂ 1 ♀ Misol. 40 ♂ 17 ♀ New Guinea. 3 ♂ Mefor Is. 1 ♂ Goodenough Is. 1 ♂ 1 ♀ Fergussons.

8a (1a). End clasp not as in 1a and without a dense comb.

8 (9a). Clasp excavate between 2 limbs, the lower limb small and short. Uncus tapered to a narrow bidentate point. ♂ upf with a long brand over vein 1 and a thin broken stigma on the tawny band from vein 1 to base of vein 3. Above markings broad: upf a tawny streak above vein 1, connecting the band to the base and the spots in spaces 4 and 5 conjoined to the band. ♂ F 15 mm.

kobros. 2 sub-species.

(a). Unh yellow band edged with black dots on a shaded ochreous ground.

Sub-sp. **issla** Plötz 1886: ♀ Kei Is.

Synonym. *procles* De Nicéville 1892: ♂ Kei Is.: figured ♂ and ♀.

B.M. 1 ♂ Letti. 16 ♂ 5 ♀ Kei Is.

(b). Unh generally reddish brown and the yellow band not black-edged.

Sub-sp. **kobros** Plötz 1885: ♂ Aru. Fig Seitz.

Synonym. *novaguineae* Rothschild 1915: ♂ Dutch N.G.: type B.M.

B.M. 1 ♂ 1 ♀ Aru. 3 ♂ Misol. 17 ♂ 10 ♀ New Guinea.

9a (8). Clasp not excavate.

9b (12a). End of clasp broad and rounded.

9 (10a). Uncus deeply divided into two divergent pointed limbs. ♂ upf with a long brand over vein 1: discal band narrow and irregular: spots in spaces 4 and 5 faint, conjoined to band unf. Unh reddish ochreous, redder at edges of band. ♂ F 14 mm.

***vasna** Evans 1935: ♂ Hydrographer Mts., British N.G.: type B.M.

B.M. 2 ♂ type loc.

10a (9). Uncus round ended with two small protruding points. ♂ upf without secondary sexual characters.
10 (11). Upf with spots in spaces 4 and 5 contiguous in ♂ with the band and apical spots, separated in ♀: a tawny streak over vein 1 from the tawny band to the base: cell mostly tawny. Unh dark purple brown, band narrow, macular and shaded, divided by dark veins. ♂ F 15 mm.

***rasta** Evans 1935: ♂ Kapaur, Dutch N.G.: type B.M.
B.M. 6 ♂ 3 ♀ Dutch New Guinea. 1 ♂ Papua.

11 (10). Wings produced, ♂ F 17 mm., looking like a *Sabera*. Above much darker: no spots in spaces 4, 5: cell mostly dark: tawny streak over vein 1 interrupted. Unh dark purple brown, band almost invisible except for the spot in space 1c.

eva Evans 1935: ♂ Kapaur, Dutch New Guinea: type B.M.
B.M. Only the type.

12a (9b). End of clasp narrow: uncus expanded towards its end. Upf no tawny streak over vein 1.
12b (14). Uncus broadly scalloped at end.
12 (13). ♂ upf with a continuous discal stigma as in *pansa*: spots in spaces 4 and 5 conjoined to the narrow discal band, but not to the apical spots. Unh and apex unf, band concolorous with the red ground and conspicuously defined by black spots. ♂ F 15 mm.

***infralutea** Rothschild 1916: ♀ Dutch New Guinea: type B.M.
B.M. 1 ♀ type. 1 ♂ Mambare River, Papua.

13 (12). ♂ upf without any secondary sexual characters. Above markings broad, spots in spaces 4 and 5 conjoined to the band and to the apical spots. Below, as in *infralutea*. ♂ F 15 mm.

***mirza** Evans 1935: ♂ Jobi Is.: type B.M.
B.M. 1 ♂ 2 ♀ Ansus, Jobi Is., Geelvink Bay, New Guinea.

14 (12b). Uncus ending in a circular disc: clasp as in *infralutea*. ♂ upf no secondary sexual characters. Upf band narrow, dark tawny, as in *infralutea*. Unh reddish brown, heavily shaded with dark scaling, band narrow, irregular and divided by conspicuous black veins. ♂ F 16 mm., wings rather produced.

tabella Evans 1935: ♂ Kapaur, Dutch New Guinea: type B.M.

B.M. Only the type.

L.13. SABERA Swinhoe 1908: type *caesina* Hewitson: fixed by author.

1a (7a). H cilia white. Without tawny markings.

1 (2a). Upf with conspicuous white spots. Antennal club white and palpi white below. ♂ upf with a small circular brand above mid vein 1. ♂ F 16–18 mm.

caesina. 5 sub-species.

(a). ♂ ♀ upf with white spots in spaces 4, 5 and 6.

Sub-sp. **caesina** Hewitson 1866: ♂ Aru (nec Waigou): type B.M. Fig Hewitson 1873.

B.M. 6 ♂ 3 ♀ Aru.

(b). ♂ upf generally with spots in spaces 4 and 6: ♀ in space 4 only.

Sub-sp. **albifascia** Miskin 1889: ♂ Herbert River, N. Queensland. Fig Waterhouse & Lyell 1914; Waterhouse 1932; Seitz as *caesina*.

B.M. 26 ♂ 11 ♀ N. Queensland.

(c). ♂ upf generally with only a single sub-apical spot in space 4.

Sub-sp. **barina** Fruhstorfer 1911: ♂ Dutch New Guinea: type B.M. Fig in Seitz, pl. 169a, underside as *caesina*.

B.M. 6 ♂ Waigou. 2 ♂ Misol. 30 ♂ 16 ♀ New Guinea. 4 ♂ Fergusson Is. 2 ♂ Goodenough Is.

(d). Unh discal white area, instead of reaching the base is broken up into a discal band and a cell spot.

Sub-sp. **sudesta** Evans 1935: ♂ Sudest Is.: type B.M.

B.M. 14 ♂ 1 ♀ Sudest Is.

(e). Uph and unh white area absent. Upf and unf no sub-apical spots: upf dorsal white streak conspicuous.

Sub-sp. **louisa** Evans 1935: ♂ Rossel: type B.M.

B.M. 4 ♂ Rossell.

2a (1). Upf unmarked. ♂ upf with a discal stigma.
2b (5a). Unh with at least traces of dark purple spots on a chocolate ground.
2c (4). ♂ upf stigma complete, reaches base of space 3.
2 (3). ♂ ♀ upf with a thin sprinkling of ochreous scales placed as follows: in spaces 1b, 2, 3, outside the stigma in ♂, broader in ♀: near termen in spaces 4, 5: at apex in spaces 6, 7, 8. Unh spots often only traceable in space 1c. ♂ F 17 mm.

fusca Joicey & Talbot 1917: ♂ Wandammen Mts.: type B.M.
B.M. 3 ♂ type loc. 1 ♀ Weylandt Mts., Dutch New Guinea.

3 (2). ♂ ♀ upf without the ochreous scaling described above.

fuliginosa. 2 sub-species.
(a). Smaller, ♂ F 16 mm. Uph no paler discal area. Unh the purple brown spots often faint.

Sub-sp. **chota** nov: ♂ Biagi, Mambare R.: 5,000 ft.: Feb. 1906: A. S. Meek: type B.M.
B.M. 2 ♂ type loc. 1 ♀ Hydrographer Mts. 1 ♂ St .Joseph Riv., British N.G. 3 ♂ 2 ♀ Weylandt and Wandammen Mts., Dutch N.G.
(b). Larger, ♂ F 17 mm. Uph with a pale brown discal area. Unh purple brown spots conspicuous.

Sub-sp. **fuliginosa** Miskin 1889: ♀ Cardwell, N. Queensland. Fig Waterhouse & Lyell 1914; Waterhouse 1932.
B.M. 27 ♂ 8 ♀ N. Queensland.

4 (2c). ♂ upf stigma never broad, nor filling base of space 3. Unh purple brown spots always plain. Upf the ochreous dorsal streak is more pronounced than usual. Wings more produced, ♂ F 17 mm.

bicolor. 2 sub-species.
(a). ♂ upf discal stigma reaches into space 3.

Sub-sp. **misola** nov: ♂ Misol: type B.M.
B.M. 2 ♂ Misol.
(b). ♂ upf discal stigma not reaching vein 3, often not crossing space 2.

Sub-sp. **bicolor** Rothschild 1915: ♂ Snow Mts., Dutch N.G.: type B.M.

B.M. 3 ♂ 2 ♀ Jobi Is., Geelvink Bay. 1 ♀ Kapaur. 1 ♂ Dorey. 1 ♂ 1 ♀ Cyclops Mts. 2 ♂ 3 ♀ Utakwa Riv., Dutch New Guinea. 1 ♂ Aroa Riv. 1 ♀ Hydrographer Mts., Papua.

5a (2b). Unh redder, no trace of purple brown spots.

5 (6). ♂ upf stigma inconspicuous. Clasp with a spur, and uncus, seen from the side, much broader than usual.

kumpia. nov: 2 sub-species.

(a). ♂ upf stigma very incomplete, consisting of small spots, placed over vein 1, under vein 2 and on either side of vein 3. ♂ F 20 mm.

Sub-sp. **kumpia** nov: ♂ Mt. Kumpi, Menoo Riv., Weylandt Mts.: 6,000 ft.: Dec. 1920–Jan. 1921: C. F. & J. Pratt: type B.M.

B.M. 1 ♂ 1 ♀ type loc.

(b). ♂ upf stigma complete, but narrow, as in *misola.* ♂ F 19 mm.

Sub-sp. **baxta** nov: ♂ Biagi, Mambare R.: 5,000 ft.: April 1908: A. S. Meek: type B.M.

B.M. Only the type.

6 (5). ♂ upf stigma pale grey, conspicuous, narrow. Clasp without a spur, but uncus normal for genus. ♂ F 18 mm.

biaga nov: ♂ Biagi, Mambare Riv.: 5,000 ft.: March 1906: A. S. Meek: type B.M.

B.M. 12 ♂ type loc. 2 ♂ Aroa Rov. 3 ♂ St. Joseph Riv., Papua.

7a (1a). H cilia tawny. With tawny markings on all wings, as is usual in the group.

7b (10a). ♂ upf discal stigma extends into base of space 3.

7 (8a). ♂ upf discal stigma continuous from vein 1 to vein 4. Tawny bands narrow.

aruana. 2 sub-species.

(a). ♂ F 17 mm. Upf usually with 3 apical spots and often with a dot in space 4, which is completely detached: cell streak usually present in ♂, also a tawny streak over vein 1 from the tawny band to the base. Unh ferruginous brown, cell spot and band more or less blurred.

Sub-sp. **aruana** Plötz 1886: ♂ Aru. Fig Swinhoe 1908; Seitz.
Synonyms. *hypomelaena* Mabille 1904: ♂ Stephansort: type B.M.
oharina (Staudinger MS) Seitz 1927 = *aruana* ♀.
jona Evans 1935: ♂ Humboldt Bay: type B.M. A small variety.
B.M. 3 ♂ Aru. 1 ♀ Misol. 15 ♂ 7 ♀ New Guinea. 2 ♂ Goodenough Is.
(b). Small, ♂ F 15 mm., dark mountain form. ♂ upf unmarked except for discal spots in spaces 1b, 2 and 3. Unf with a very faint streak in cell. Unh very dark purple brown, discal band very faint.

Sub-sp. **lina** nov: ♂ Mt. Lina, Cyclops Mts., Dutch New Guinea: 4,500 feet: March 1934: L. E. Cheesman.
Only the type.

8a (7). ♂ upf stigma discontinuous across space 1b, just dots on the veins.
8 (9). Uncus slender to base. ♂ F 16 mm. Markings as in *aruana*: upf spots in spaces 4 and 5, if present, completely detached.

***tabla** Swinhoe 1905: ♂ Humboldt Bay: type B.M.
Synonym. *luna* Evans 1935: ♂ Utakwa Riv.: type B.M.
B.M. 5 ♂ Humboldt Bay. 1 ♀ Jobi Is. 1 ♂ Utakwa Riv., Dutch N.G.

9 (8). Uncus slender only for the upper half. ♂ F 18 mm., tawny bands comparatively broad. Upf spot in space 4 usually present and is contiguous with the spot in space 3.

dobboe. 5 sub-species.
(a). In the first 3 sub-species the prevailing tone below is rather pale reddish brown streaked by dark veins and the yellow cell spot and macular band: the tone varies from yellow, concolorous with the band, to dark purple brown with the band almost invisible. Specimens from Kei are smaller and paler and upf spots are nearly always present in spaces 4 and 5.

Sub-sp. **edna** Evans 1935: ♂ Kei Is.: type B.M.
B.M. 9 ♂ 8 ♀ Kei Is.
(b). The typical form is very variable. Upf spot in space 5 usually absent.

Sub-sp. **dobboe** Plötz 1885: ♂ Aru. Fig Swinhoe 1908; Seitz.

Synonyms. *silativa* Swinhoe 1905: ♂ Humboldt Bay: type B.M.

sanghamitta Fruhstorfer 1911: ♂ Dutch N.G.: type B.M.

bona Evans 1935: ♂ Goodenough Is.: type B.M.

B.M. 8 ♂ 4 ♀ Aru. 1 ♂ Misol. 1 ♂ 2 ♀ Waigou. 37 ♂ 21 ♀ New Guinea. 2 ♂ 2 ♀ Kiriwini. 2 ♂ 3 ♀ Dampier. 4 ♂ St. Aignan. 1 ♂ 4 ♀ Rossel. 4 ♂ 1 ♀ Goodenough. 3 ♂ 2 ♀ Vulcan Is. 2 ♂ Sudest Is.

(c). Markings very broad and upf veins on the dark border are yellowish.

Sub-sp. **meforica** Fruhstorfer 1911: ♂ Mefor Is.: type B.M.

B.M. 10 ♂ 14 ♀ Mefor Is.

(d). In the last 2 sub-species there is no cell spot unh. The Australian form is dark with narrow bands. Upf no spot, or a detached dot, in space 4. Uph discal band not crossing space 1c. Unh dark purple brown, the band sullied.

Sub-sp. **autoleon** Miskin 1889: ♂ N. Queensland. Fig Waterhouse & Lyell 1914; Waterhouse 1932.

B.M. 22 ♂ 22 ♀ N. Queensland.

(e). Intermediate between *dobboe* and *autoleon*, distinguished from the former by the absence of the cell spot unh and from the latter by the redder tone below.

Sub-sp. **hanova** nov: ♀ New Hanover: March 1897: Webster: type B.M.

B.M. 1 ♂ 1 ♀ Rook Island. 3 ♀ New Hanover.

10a (7b). ♂ upf discal stigma not entering space 3. Generally like *aruana*. Unh dark ferruginous brown, purple glossed.

10 (11). Palpi and antennal club below yellow. ♂ upf stigma reduced to grey dots, over vein 1, on either side of vein 2 and under origin of vein 3. Upf with a small cell spot, no spots in spaces 4 and 5 (rarely a dot in space 4), conspicuous streak from band to base over vein 1. Unh band suffused faint. Uncus normal. ♂ F 19 mm.

dorena Evans 1935: ♂ Geelvink Bay: type B.M.

B.M. 1 ♂ Waigou. 5 ♂ 1 ♀ Dutch N.G. 1 ♂ Hydrographer Mts., Papua.

11 (10). Palpi and antennal club below ferruginous. ♂ upf stigma consists of a broad black spot over vein 1, smaller spots on either side of vein 3. Upf no cell spot, may be a dot in space 4, streak to base over vein 1 absent or faint. Unh as *dorena*. Uncus abnormal, expanded for a short distance below tip. ♂ F 18 mm.

***expansa** Evans 1935: ♂ Mambare River, Papua: type B.M.
B.M. 5 ♂ type loc. 1 ♂ 2 ♀ Dutch New Guinea.

L.14. MIMENE Joicey & Talbot 1917: type *miltias* Kirsch: fixed by authors.

Synonym. *Mimas* De Nicéville 1895: type *miltias* Kirsch: fixed by author: homonym by Hübner 1822.

1a (3a). Unf with more or less conspicuous apical spots (present in some forms of *celia*).

1 (2). Unf the apical spots extend into space 9. Sexes very different. ♂ above, thorax and bases sulphur yellow, extending to discal band on H: upf with more or less suffused yellow discal spots in spaces 1b to 3. Unf chocolate with a yellow cell spot, irregular conjoined apical spots from spaces 4 to 9 and an expanding discal area from space 3 to 1b. Unh chocolate with large discal spots in spaces 1c and 4 to 5, small spots in space 6 and cell. ♀ above, thorax and bases clothed with pale blue hairs: otherwise unmarked. Unf as ♂, but markings white: unh with small white spots in spaces 1c and 6. ♂ upf with an obscure broken discal stigma. ♂ F 22 mm.: ♀ 25 mm. ♀ antennal club white.

***melie** De Nicéville 1895: ♀ Humboldt Bay: figured.
B.M. 34 ♂ 24 ♀ New Guinea. 5 ♂ 1 ♀ Dampier. 5 ♂ 1 ♀ Vulcan Is.

2 (1). Unf the apical spots not extending above vein 9. Sexes alike with tawny markings on all wings, much as in *Sabera aruana*. ♂ F 20 mm.

kolbei. 2 sub-species.

(a). ♂ upf with an irregular broken discal stigma from mid vein 1 to base of space 3. Upf with a sharply marked cell spot, detached small spots in spaces 4 and 5, apical spots in spaces 6 to 8, as well as the usual discal band in spaces 1b to 3 and more or less developed streaks on either side of vein 1 from the band to the base. Unh brownish ochreous with a cell spot and the usual discal band cut by black veins and black-edged.

Sub-sp. ***tenebricosa** Mabille 1904: ♂ New Guinea: type B.M.

Synonym. *megathymoides* Rothschild 1915: ♂ Vulcan Is.: type B.M.

B.M. 3 ♂ Aru. 1 ♂ Waigou. 17 ♂ 4 ♀ New Guinea. 4 ♂ 5 ♀ Vulcan Is. 4 ♂ Dampier.

(b). Very much darker and markings much reduced. ♂ upf stigma reduced to a spot over vein 1 and spots on either side of vein 2. Upf apical spots and those in spaces 4 and 5 absent: in ♀ spot in space 3 detached from band. Unf apical spots present, but like the spots unh only show faintly on the dark reddish brown ground.

Sub-sp. **kolbei** Ribbe 1899: ♂ New Britain.

B.M. 1 ♂ 1 ♀ New Britain.

3a (1a). Unf without apical spots (one or more may appear in *celia*).

3b (11a). Upf with at least some traces of tawny or ferruginous scaling. Unh markings absent or vestigial.

3c (8a). Such scaling discal rather than basal.

3d (7). Cilia never white, dusky or tawny. Antennal club white below.

3e (5a). ♂ upf with a continuous discal stigma from mid vein 1 to base of vein 4.

3 (4). ♂ upf portion of stigma in space 1b irregular, centrally acutely distorted. Uncus tapered to a rounded broad tip: end of clasp broad and rounded. Above with tawny (♀ yellow) bands well marked, upf in spaces 1b to 3 and uph space 2 to 4–5. Unh chocolate (♀ purple glossed), markings vestigial. Unf spot in space 3 vestigial in ♂. ♂ F 20 mm.

***waigeuensis** Joicey & Talbot 1917: ♂ Waigou: type B.M.

B.M. 1 ♀ Aru. 6 ♂ 2 ♀ Waigou. 3 ♂ 1 ♀ Ron. Is., Geelvink Bay. 10 ♂ 4 ♂ Papua (Kumusi R., Collingwood Bay, Milne Bay, Hydrographer Mts.).

4 (3). ♂ upf portion of stigma in space 1b straight. Uncus tapered to a point: clasp also tapered to a point. ♂ F 20 mm.

biakensis. 2 sub-species.

(a). Above markings as in *waigeuensis*, but duller and unf no spot in space 2.

Sub-sp. **gunta** nov: ♂ German New Guinea: type B.M.
B.M. 3 ♂ type loc.

(b). Above the tawny markings vestigial: below, absent in ♂, a yellow spot in space 1b in ♀.

Sub-sp. **biakensis** Joicey & Talbot 1917: ♂ Biak, Schouten Is.: type B.M.
B.M. 2 ♂ 1 ♀ type loc.

5a (3e). ♂ upf with short brands along the veins, over vein 1 and on either side of veins 2 and 3. ♂ F 19–20 mm.

5 (6). Clasp not tapered, broad and flat at end with a protruding point at the dorsal corner. Above and below nearly black, unmarked, except for some obscure dark ochreous scaling above, indicating the usual discal bands, and the cilia towards the tornus H are tawny.

wandammanensis Joicey & Talbot 1917: ♂ Wandamman Mts., Dutch New Guinea: type B.M.
B.M. 1 ♂ type loc. 1 ♂ Arfak Mts., Dutch N.G.

6 (5). Clasp tapered to a sharp point. This appears to be an extraordinarily variable species in several respects. The clasp varies slightly and the end of the aedeagus may be sharply pointed or spatulate. The brands upf may be very short or very long. The discal band upf may be narrow and sharply marked or it may be extended inwards to the base and cubitus and be accompanied by a cell spot and apical spots. More material may show that the sub-species mentioned below are no more than individual forms, or that there are several closely related species.

celia. 4 sub-species.

(a). Upf tawny area dark and extensive, reaching base: apical spots present. Unf large conjoined tawny spots in cell, spaces 1b, 2 and 3: 3 apical spots. Aedeagus spatulate. Brands long. ♂ F 17 mm.

Sub-sp. **brutus** Evans 1935: ♂ Aru: type B.M.
B.M. 1 ♂ Aru.
(b). Upf tawny area extended to base, but without a cell spot or apical spots: dark borders wider than in any other form. Aedeagus spatulate. Brands long. ♂ F 20 mm.

Sub-sp. ***caesar** Evans 1935: ♂ Kapaur: type B.M.
B.M. 4 ♂ 1 ♀ Kapaur. 1 ♀ near Fak-Fak, Dutch N.G. 1 ♀ Misol.
(c). Aedeagus pointed, brands short. Typically with a narrow band upf, not extended inwards, but in several specimens the band is as broad as in *caesar* and unf there may be a large cell spot, as in *brutus*. ♂ F 20 mm.

Sub-sp. **celia** Evans 1935: ♂ Jobi Is., Geelvink Bay: type B.M.
B.M. 3 ♂ type loc. 1 ♂ Eilanden Riv. 2 ♂ Utakwa Riv. 4 ♂ 1 ♀ Humboldt Bay, Dutch N.G.
(d). Paler tawny. Aedeagus spatulate: brands intermediate. ♂ upf, typically, band broadly extended to base and apical spots present, but most of the specimens are more like *caesar*. ♂ F 18 mm.

Sub-sp. **sariba** Evans 1935: ♂ Sariba Is., Papua: type B.M.
B.M. 2 ♂ Sariba Is. 6 ♂ 1 ♀ Kumusi Riv., Papua.

7 (3d). Cilia conspicuously white, as well as the antennal club. Upf with more or less well-developed pale ochreous spots in spaces 1b, 2 and 3. Uph band vestigial. Below, as above, but rather paler. ♂ F 17 mm.: wings more rounded than usual. ♂ no secondary sexual characters.

albiclavata Butler 1882: ♂ Duke of York Is.: type B.M.
The description given in Seitz (9: 1085) applies to *Borbo impar*.
B.M. 2 ♂ German New Guinea. 2 ♂ 1 ♀ Rook Is. 12 ♂ 9 ♀ New Britain. 3 ♂ 1 ♀ New Ireland. 2 ♂ New Georgia. 1 ♂ type.

8a (3c). Upf ochreous scaling basal, not discal. Head green.
8 (9a). Unf with a sub-basal ochreous band. Upf basal area broadly ochreous. ♂ without secondary sexual characters. ♂ F 22 mm.

basalis. 2 sub-species.

(a). Above, the ochreous areas much paler and more sharply defined. Below, the ochreous area larger.

Sub-sp. **benita** Evans 1935: ♂ Aru: type B.M.

B.M. 3 ♂ Aru.

(b). Above ochreous area darker and duller.

Sub-sp. ***basalis** Rothschild 1915: ♂ Dutch New Guinea: type B.M.

Synonym. *viridicincta* Joicey & Talbot 1917: ♂ Waigou: type B.M.

B.M. 1 ♂ Misol. 1 ♂ Waigou. 8 ♂ Dutch N.G. 5 ♂ Papua.

9a (8). Unf base of costa, to mid cell, and unh costal half of wing, ferruginous. Above bases suffused ferruginous.

9 (10). Larger and wings produced, ♂ F 24 mm. ♂ upf with a narrow black discal stigma, incomplete in space 1b, extending to base of space 3. ♀ upf with traces of a discal ferruginous spot in space 2, extending into space 3 and sometimes into space 1b.

miltias Karsch 1876: ♀ Jobi Is. ♂ described by De Nicéville 1895. The description in Seitz (9: 1086) and the figure on pl. 173f relate to *Caltoris boisduvali.*

B.M. 6 ♂ 2 ♀ Geelvink Bay. 2 ♂ 1 ♀ Jobi Is. 4 ♂ Humboldt Bay. 4 ♂ 1 ♀ German New Guinea. 3 ♂ Papua.

10 (9). Smaller and wings rounded, ♂ F 20 mm. ♂ upf without a stigma, but with small brands, above mid vein 1 and on either side of veins 2 and 3. ♀ upf without any traces of discal spots. Otherwise exactly like *miltias*.

***lysima** Swinhoe 1905: ♀ Kei Is.: type B.M.

Synonym. *miltiades* Fruhstorfer 1911: ♀ Dutch N.G.: type B.M.

B.M. 1♀ Kei Is. 11 ♂ 7 ♀ Dutch New Guinea. 6 ♂ 3 ♀ German N.G. 1 ♀ Papua.

11a (3b). Above, uniform dark brown, no tawny colouring.

11b (14a). Unh blue or green, not brown.

11 (12a). Unh with a pale central band. Cilia H dark. Antennal club plain. ♂ upf with a narrow black, irregular discal stigma from vein 1 to base vein 4. Abdomen in

♂ and ♀ red at sides near thorax. Above dark brown, unmarked. Below indigo blue: unf unmarked in ♂, ♀ with large pale blue spots in spaces 1b to 3: unh ♂ with a yellow band from mid costa to vein 1b, ♀ with a broader pale blue band reaching the dorsum. ♂ F 25 mm.: ♀ 28 mm.

***cyanea** Evans 1928: ♂ Kapaur, Dutch N.G.: type B.M.
B.M. 13 ♂ 8 ♀ Dutch New Guinea.

12a (11). Unh without a central pale band.

12 (13). ♀ unh bluish white with a broad (4 mm.) dark shining green border along costa and termen. Unf indigo blue, costa and termen dark shining green, 3 large bluish white spots, 2 in space 1b and the third in space 2. Abdomen striped narrowly bluish white. Above purple brown, bases clothed with dark greenish ochreous hairs. Antennae white under club, shaft narrowly white chequered. ♀ F 23 mm.

***albidiscus** Joicey & Talbot 1917: ♀ Biak, Schouten Is.: type B.M.
B.M. Only the type.

13 (12). ♂ unh shining dark bluish green, with more or less developed small dull white discal spots in spaces 1b to 4–5: antennal club with little or no white scaling. ♀ unh entirely pale shining blue: antennal club more or less entirely white. Cilia H narrowly white in ♂, brown in ♀. Above and unf unmarked. ♂ upf with an irregular narrow black stigma from vein 1 to base vein 4. ♂ F 22 mm.

***atropatene** Fruhstorfer 1911: ♀ Waigou: type B.M.
Synonym. *wollastoni* Rothschild 1915: ♂ Dutch N.G.: type B.M.
1 ♀ Aru. 1 ♂ 1 ♀ Waigou. 11 ♂ 3 ♀ Dutch N.G. 1 ♀ German N.G. 19 ♂ 6 ♀ Papua. 2 ♂ Fergusson Is. 2 ♂ Goodenough.

14a (11b). Unh brown with a more or less conspicuous violet gloss.

14 (15). Antennal club and cilia H white. ♂ upf with a narrow discal stigma from vein 2 to base of space 3.

♂ above, brown, violet gloss faint or absent: unh with traces of small yellowish discal spots in spaces 1c to 4–5. ♀ with a much more conspicuous violet gloss. ♂ F 18 mm.

***orida** Boisduval 1832: ♀ Arfak, New Guinea.
Synonym. *owgarra* Evans 1935: ♂ Papua: type B.M.
B.M. 1 ♀ Utakwa Riv., Dutch N.G. 6 ♂ 1 ♀ Papua (Aroa Riv., Brown Riv., Owgarra).

15 (14). Antennal club plain brown: cilia pale yellow. ♂ without secondary sexual characters. Palpi below yellow. Wings above and below unmarked dark brown with a very conspicuous violet gloss. ♂ F 15 mm.

***milnea** Evans 1935: ♂ Milne Bay, Papua: type B.M.
B.M. 4 ♂ Dutch New Guinea (Dorey, Humboldt Bay). 2 ♂ Papua (Kumusi Riv.). 1 ♂ Fergusson Is.

M.1. GEGENES Hübner 1819: type *pumilio* Hoffmansegg: sole species included was "*pygmaeus* Fabricius 1775 and Hübner 1803". Hübner's figures are of *pygmaeus* Cyrilli 1793 and not of Fabricius' species. Being a homonym, Cyrilli's name was replaced by *pumilio* Hoffmansegg 1804. Synonym. *Philoodus* Rambur 1842: type *nostrodamus* Fabricius: fixed by Scudder 1875.

1 (2). Of the curved ventral edge of the cuiller only the distal half is serrate, generally very irregularly. ♂ F 14 mm. ♂ above, very dark brown, usually conspicuously paler outwardly on upf and all uph. ♂ below, overlaid grey-brown scaling, with the discal spots more or less indicated. ♀ paler, upf and unf the spotting very variable. Antennal shaft chequered on underside.

pumilio Hoffmansegg 1804: type Naples. Fig as *pygmaeus* by Esper 1793 and Hübner 1803; as *nostrodamus* in Lep Ind; as *lefebvrii* by Oberthür 1911; as *pygmaeus* in Seitz I. Supp.
Synonyms. *pygmaeus* Cyrilli 1787: Naples. Homonym by Fabricius 1775.
aetna Boisduval 1840: Sicily.
lefebvrii Rambur 1842: Sicily.

gambica Mabille 1878: ♂ Gambia: type B.M.
occulta Trimen 1891: ♂ Barberton: type B.M.
ursula Holland 1896: ♂ Kenya.
monochroa Rebel 1907: ♂ Socotra. *major* Ragusa 1919.
B.M. 5 ♂ 4 ♀ Algeria. 4 ♂ 4 ♀ Spain. 4 ♂ 4 ♀ France (Alpes Maritimes). 48 ♂ 48 ♀ Italy (Caserta). 4 ♂ 4 ♀ Sicily. 1 ♂ Bosnia. 2 ♂ 2 ♀ Greece. 25 ♂ 8 ♀ Cyprus. 20 ♂ 8 ♀ Syria. 1 ♂ Palestine. 1 ♂ Irak. 1 ♂ Persia. 4 ♂ 1 ♀ Chitral. 1 ♀ Baluchistan. 1 ♂ 1 ♀ Waziristan. 5 ♂ 2 ♀ Khyber. 3 ♂ 2 ♀ Punjab. 22 ♂ 4 ♀ N.W. Himalayas (Kashmir—Kulu). 4 ♂ 1 ♀ Socotra. 49 ♂ 11 ♀ Africa, S. of Sahara.

2 (1). The curved ventral edge of the cuiller evenly and finely serrate throughout. ♂ F 14–16 mm. ♂ ♀ similar to *pumilio*, but much paler. Antennal shaft plain white on underside.

nostrodamus Fabricius 1793: Barbaria. Fig Oberthür 1911; as *karsana* in Lep Ind.
Synonyms. *proclea* Walker 1870: ♀ Cairo.
karsana Moore 1874: ♂ Rawalpindi: type B.M.
pumilio–minima Verity 1931. *megalegyna* Verity 1940.
B.M. 42 ♂ 31 ♀ Algeria. 3 ♂ 1 ♀ Morocco. 5 ♂ 1 ♀ Tripoli. 2 ♂ Tunis. 21 ♂ 6 ♀ Spain. 10 ♂ 5 ♀ Greece. 5 ♂ 3 ♀ Turkey. 1 ♂ 1 ♀ Asia Minor. 3 ♂ 1 ♀ Syria. 1 ♂ 1 ♀ Trans-Caucasus. 3 ♂ 2 ♀ Arabia. 19 ♂ 8 ♀ Aden. 2 ♂ Kassala, N.E. Africa. 23 ♂ 23 ♀ Cairo. 15 ♂ 11 ♀ Irak. 4 ♂ 4 ♀ Turkestan. 8 ♂ 1 ♀ Bokhara. 5 ♂ 2 ♀ Afghanistan. 7 ♂ 11 ♀ Baluchistan. 16 ♂ 5 ♀ Sind. 1 ♂ 3 ♀ Cutch. 2 ♂ 1 ♀ Deesa, Rajputana. 3 ♂ 4 ♀ N.W. Frontier, India. 9 ♂ 3 ♀ Chitral. 10 ♂ 11 ♀ Punjab. 1 ♀ United Prov., India. 1 ♂ 1 ♀ Bengal.

M.2. PARNARA Moore 1881: type *guttatus* Bremer & Grey: fixed by author.
Synonym. *Baorynnis* Waterhouse 1932: type *amalia* Semper: fixed by author.

1a (4). Upf spot in space 2 with its inner edge under or after the origin of vein 2.

1b (3). Ventral edge of valva comparatively straight and the clasp of more or less the same width throughout.

1 (2). Cuiller projecting ventrally beyond the valva, the ventral edge of which is straight.

guttatus. 6 sub-species.

(a). ♂ F 17–18 mm. Uph always with a straight row of 4 discal spots. ♂ upf with 2 cell spots, the lower spot being absent usually in the ♀. There are 2 forms, pale and dark, which more or less intergrade.

Sub-sp. **guttatus** Bremer & Grey 1853: ♂ N. China. Fig Ménétriés 1855; Seitz I.

Synonyms. *fortunei* Felder 1862: ♀ Shanghai: type B.M. *wambo* Plötz 1886: ♂ "Africa": copy of MS plate in B.M. *kotoshona* Sonan 1936: ♂ Formosa: figured.

B.M. 27 ♂ 20 ♀ Japan. 1 ♂ 1 ♀ Liu Kiu Is. 2 ♂ 1 ♀ Korea. 36 ♂ 35 ♀ N. China (Pechili, Shantung, Kian Su, Chekiang, Hupeh, Fukien, Chusan Is.).

(b). F 27 mm. Upf and unh each with 4 irregular spots.

Sub-sp. **ogasawarensis** Matsumura 1926: ♂ Ogasawarajima, Bonin Is.: figured. Fig Matsumura 1931. A very curious insect.

B.M. None.

(c). Small, ♂ F 14 mm., rather pale. Upf cell spots just traceable and uph only 2 discal spots. Genitalia of *guttatus*, appearance of *bada*.

Sub-sp. **batta** nov: ♂ Kuatuni, Fukien, 2,300 metres, May: J. Klapperich: type B.M. Fig Corbet 1941 as *bada*.

B.M. 12 ♂ 4 ♀ type loc. (flying with *bada*).

(d). Like *guttatus*, smaller, ♂ F 17 mm.: no pale form. ♂ upf lower cell spot rarely present. Uph discal spots tend to be irregular.

Sub-sp. **mangala** Moore 1865: ♂ N. India: type B.M. Fig Lep Ind as *guttatus*.

Synonyms. *philino* Möschler 1879: ♂ Himalaya. The figures in Rhop Java and Seitz are of *naso bada*. *kolantus* Plötz 1885: ♂ India. Fig Seitz. *ormuzd* Groum Grshmaïlo 1888: ♀ Bokhara: type B.M.

B.M. 25 ♂ 20 ♀ S. and W. China (Kiang Si, Kwang Tung, Szechwan, Yunnan). 1 ♀ Bokhara. 8 ♂ 2 ♀ Chitral. 3 ♂ 1 ♀ N.W. Frontier (Khyber, Hangu). 36 ♂ 25 ♀ N.W.

Himalayas (Kashmir—Kumaon). 12 ♂ 4 ♀ Sikkim. 19 ♂ 17 ♀ Assam. 1 ♂ N. Burma (Sadon). 3 ♀ S. Shan States. 2 ♂ 2 ♀ Hainan.

(e). Smaller, ♂ F 16 mm. Upf no cell spots. Unh with an additional discal spot in space 6. Ventral edge of valva straighter.

Sub-sp. **apostata** Snellen 1880: ♂ Sumatra. Fig Rhop Java; Seitz.

Synonyms. *haga* Plötz 1886: ♂ Java. Copy of unpublished MS fig in B.M.

sifa Plötz 1886: ♂ Java. Fig in Seitz.

B.M. 2 ♂ S. Burma (Ataran, Tavoy). 1 ♂ Peninsular Siam. 2 ♂ 1 ♀ Malaya. 7 ♂ 3 ♀ Sumatra. 2 ♂ 1 ♀ Nias. 2 ♂ Banka. 2 ♂ Batoe. 29 ♂ 18 ♀ Java. 5 ♂ 4 ♀ Bali.

(f). Smaller, ♂ F 15 mm. ♂ uph discal spots enlarged and confluent.

Sub-sp. **andra** nov: ♂ Borneo, Matang Road, February: type B.M.

B.M. 2 ♂ S.W. Sumatra. 4 ♂ 2 ♀ Borneo. 1 ♀ Celebes.

2 (1). Valva projecting beyond the cuiller ventrally and its ventral edge concave below the projection. ♂ F 14–15 mm. Upf rarely with a lower cell spot, and the uppermost apical spot (in space 8) nearly always absent. Uph usually with 4 conspicuous, somewhat irregular, discal spots. Unh rarely a spot in space 6.

***ganga** Evans 1937: ♂ Manipur: type B.M. Fig Corbet 1941.

B.M. 1 ♂ C. India. 1 ♂ 2 ♀ Barrackpur. 1 ♂ Ganjam. 1 ♂ Khasi Hills. 1 ♂ Cachar. 2 ♂ Naga Hills. 29 ♂ 6 ♀ Manipur (March–Aug.). 6 ♂ 2 ♀ Burma (to Tavoy). 1 ♂ Tonkin. 14 ♂ 5 ♀ Hainan. 8 ♂ 6 ♀ China (W. Szechwan, Kwanshien, Hong Kong, Kian Si). 1 ♂ Malaya? (Singapore).

3 (1b). Ventral edge of valva strongly bowed outwards, so that the clasp is much wider in the middle than at the ends.

naso. 2 Oriental sub-species. *naso* Fabricius 1793 was described from Mauritius and occurs all over Africa, S. of the Sahara, in Madagascar and Reunion.

(a). Very variable in respect of the tone of the brown wings and the hindwing spotting. ♂ F 14–15 mm. Upf very rarely with an upper cell spot and apical spots may be reduced from 3 to 1. Uph anything from no spots to 5. Unh the spots may, in whole or in part, be replaced by black smudges.

Sub-sp. **bada** Moore 1878: ♂ Ceylon: type B.M. Fig Lep Ceylon; Lep Ind; Matsumura 1931; Corbet 1941.
Synonyms. *quinigera* Moore 1878: ♂ Hainan: type B.M.
hainanus Moore 1878: ♂ Hainan: type B.M.
intermedia Plötz 1883: ♂ Java: fig in Seitz.
daendali Plötz 1883: ♀ Java: fig in Seitz.
rondoa Plötz 1886: ♂ Manila: fig in Seitz.
distictus Holland 1887: ♂ Hainan: figured.
philotas De Nicéville 1895: ♂ Travancore: figured. Fig Lep Ind as *vaika* (pl. 834/2 and 2b).
B.M. 1 ♀ "Japan". 2 ♂ 1 ♀ Liu Kiu Is. 18 ♂ 16 ♀ Formosa. 5 ♂ 3 ♀ China (Fukien, Kwang Tung). 20 ♂ 19 ♀ Hainan. 7 ♂ 6 ♀ Ceylon. 37 ♂ 26 ♀ S. India. 1 ♂ 2 ♀ C. India. 1 ♂ Kashmir. 8 ♂ 4 ♀ Bengal. 5 ♂ Sikkim. 4 ♂ 2 ♀ Assam. 6 ♂ 4 ♀ Burma. 2 ♀ Siam. 1 ♂ 2 ♀ Indo-China. 3 ♂ 2 ♀ Malaya. 14 ♂ 1 ♀ Sumatra. 1 ♂ Nias. 1 ♀ Siberut. 1 ♂ 1 ♀ Banka. 6 ♂ 2 ♀ Java. 4 ♂ 3 ♀ Bali. 19 ♂ 2 ♀ Borneo. 8 ♂ 2 ♀ Philippines. 5 ♂ 3 ♀ Lombok. 1 ♂ 1 ♀ Tambora. 3 ♂ 1 ♀ Celebes. 1 ♂ Batjan.

(b). Rather larger, ♂ F 16 mm. Upf discal spot in space 2 larger and usually overlapping the spot in space 3: spot in space 4 usually absent. Uph usually with 2 discal spots, may be none.

Sub-sp. **sida** Waterhouse 1934: ♂ N. Queensland. Fig Waterhouse & Lyell 1914 and Waterhouse 1932 as *bada*.
B.M. 9 ♂ 6 ♀ N. Queensland.

4 (1a). Upf spot in space 2 with its inner edge well before the origin of vein 3. Bases of wings, above, ochreous. ♂ F 16 mm.

amalia Semper 1879: ♂ Rockhampton. Fig Waterhouse 1932.
Synonym. *fulgidus* Miskin 1889: ♂ Queensland.
B.M. 2 ♂ 1 ♀ Port Darwin. 21 ♂ 5 ♀ N. Queensland.

M.3. BORBO: Evans (page 44) type *borbonica* Boisduval: fixed by author.

1a (4). Mid tibiae unspined.

1b (3). Wings produced. Antennal club angled. Palpi appressed, third segment short, stout, erect, inconspicuous.

1 (2). Above, thorax and bases with ochreous clothing. Upf spot in space 2 quadrate. Uph usually with conspicuous hyaline spots in spaces 2 and 3.

impar. 3 sub-species.

(a). Upf spot in space 2 separated from the lower cell spot. ♂ F 17–20 mm.

Sub-sp. **tetragraphus** Mabille 1891: ♀ Amboina.

Synonyms. *bipunctata* Elwes & Edwards 1897: ♂ Batchian: figured. Fig in Seitz.

laraca Swinhoe 1907: ♂ Woodlark Is.: type B.M. Fig Swinhoe 1908.

sidata Fruhstorfer 1911: ♂ Buru: type B.M.

contigualis Rothschild 1915: ♂ New Guinea: type B.M.

lavella Evans 1937: ♂ Bougainville: type B.M.

B.M. 22 ♂ 13 ♀ N. Moluccas. 9 ♂ 3 ♀ S. Moluccas. 1 ♂ 1 ♀ Aru. 1 ♀ Misol. 18 ♂ 11 ♀ New Guinea. 1 ♀ Kiriwini. 4 ♂ 3 ♀ Vulcan Is. 2 ♂ 1 ♀ Dampier. 2 ♂ 1 ♀ Fergusson Is. 5 ♂ 1 ♀ Sudest. 9 ♂ 4 ♀ Bismarcks. 14 ♂ 8 ♀ Solomons. 4 ♂ 3 ♀ St. Aignan. 3 ♂ 2 ♀ Woodlark Is.

(b). Upf spot in space 2 overlapped by cell spot. Paler. ♂ F 19 mm.

Sub-sp. **lavinia** Waterhouse 1932: ♂ Port Denison. Fig Waterhouse 1932.

B.M. 13 ♂ 2 ♀ N. Australia (Port Darwin).

(c). Much darker and markings reduced. ♀ upf only spots in spaces 1b and 2: unh with spots in spaces 2, 3, 4 and 6. ♀ F 17 mm.

Sub-sp. **impar** Mabille 1883: ♀ "Australia or Oceania": type B.M.

B.M. 3 ♀ New Caledonia (♂ unknown).

2 (1). Above thorax and bases with inconspicuous greenish clothing. Usually upf with a conspicuous non-hyaline spot in space 1b, discal series in spaces 2, 3, 4 and apical dots in spaces 6, 7, 8, as well as an upper cell spot. Uph with 1 or 2 dots. Unh with olive-ochreous scaling and spots in spaces 2, 3, 6. ♂ F 15–16 mm.

cinnara Wallace 1866: ♂ Formosa: type B.M. Fig Lep Ind; Rhop Java (as *bevani*); Waterhouse 1932; Corbet 1941.
Synonyms. *colaca* Moore 1877: ♂ Andamans: type B.M.: figured. Fig Leech: Seitz, pl. 173a is *bada.*
cingala Moore 1881: ♂ Ceylon: type B.M.: figured.
saturata Wood-Mason & De Nicéville 1882: ♂ Nicobars.
saruna Plötz 1885: ♀ Amboina. Fig in Seitz.
urejus Plötz 1885: ♂ Aru: fig in Seitz.
B.M. 13 ♂ 12 ♀ Ceylon. 12 ♂ 13 ♀ S. India. 4 ♂ 1 ♀ C. India. 3 ♂ 1 ♀ Simla. 1 ♂ Bengal. 7 ♂ 7 ♀ Sikkim. 2 ♂ Manipur. 7 ♂ 6 ♀ Burma. 1 ♂ Siam. 10 ♂ 7 ♀ Andamans. 16 ♂ 12 ♀ Nicobars. 4 ♂ 2 ♀ Hong Kong. 7 ♂ 8 ♀ Formosa. 3 ♂ 3 ♀ Hainan. 2 ♂ Annam. 3 ♂ 5 ♀ Malaya. 1 ♂ 2 ♀ Sumatra. 2 ♂ 2 ♀ Nias. 1 ♀ Banka. 3 ♂ 5 ♀ Java. 4 ♂ 4 ♀ Borneo. 16 ♂ 16 ♀ Engano to Tenimber. 7 ♂ 5 ♀ Philippines. 2 ♂ 2 ♀ Celebes. 1 ♂ 1 ♀ Sula Is. 8 ♂ 5 ♀ Moluccas. 4 ♂ 2 ♀ Kei Is. 1 ♂ Aru. 7 ♂ 6 ♀ New Guinea. 4 ♂ 4 ♀ Bismarcks. 1 ♀ Goodenough. 1 ♂ 1 ♀ Admiralty Is. 1 ♂ 1 ♀ St. Aignan. 1 ♂ Sudest. 2 ♂ 5 ♀ St. Mathias. 5 ♂ 4 ♀ New Hebrides. 8 ♂ 9 ♀ Solomons. 1 ♀ Banks Is. N. Australia.

3 (1b). Wings broad. Antennal club obtuse. Palpi semi-erect, hairy: third segment longer, pointed, conspicuous. Varies greatly in size, ♂ F 13–16 mm. and in spotting: at one extreme with only 2 discal, 2 apical and an upper cell spot upf: at the other extreme with conspicuous spots, two in space 1b, one each in spaces 2 to 8 and the upper cell spot, accompanied on uph with dots in spaces 4 to 6. Unh greenish olive, variably spotted.

bevani Moore 1878: ♂ Moulmein: type B.M. Fig Lep Ind; Seitz vol. 1; Matsumura 1931; Waterhouse 1932.
Synonyms. *modesta* Moore 1883: ♀ Nilgiris: type B.M.
vaika Plötz 1886: ♂ India. Fig Lep Ind, pl. 834/2a, 2c.
sarus Mabille 1891: ♂ Chaata.
thyone Leech 1894: ♂ Kiu Kiang: type B.M.: figured.

B.M. 6 ♂ Formosa. 29 ♂ 8 ♀ China (Chekiang—Yunnan and Szechwan). 20 ♂ 9 ♀ S. India. 1 ♂ Centr. India. 24 ♂ 15 ♀ Kashmir to Kumaon. 28 ♂ 8 ♀ Sikkim. 1 ♂ 1 ♀ Bhutan. 22 ♂ 7 ♀ Assam. 16 ♂ 3 ♀ Burma. 1 ♂ Peninsular Siam. 1 ♂ Indo-China. 3 ♂ Hainan. 2 ♀ Sumatra. 2 ♂ Java. 3 ♂ Celebes. 1 ♂ Ceram. In Sydney Museum from N. Queensland.

4 (1a). Mid tibiae spined. (See Catalogue of African Hesperiidae 1938.)

borbonica. 1 sub-species: 2 others in Africa and the Seychelles. ♂ F 14 mm. Palpi ochreous below.

Sub-sp. **zelleri** Lederer 1855: Syria. Fig Seitz I.

Synonym. *holli* Oberthür 1910: ♂ Hussain Dey: type B.M.: figured.

B.M. 19 ♂ 6 ♀ Algeria. 3 ♂ 8 ♀ Morocco. 1 ♂ Gibraltar. 12 ♂ 18 ♀ Egypt. 5 ♂ 3 ♀ Syria. 1 ♂ Palestine.

M.4. PELOPIDAS Walker 1870: type *thrax* Hübner: sole species included was *midea* Walker, which is *thrax*.

Synonymy. *Chapra* Moore 1881: type *mathias* Fabricius, sole species included.

1a (7a). ♂ upf with discal stigma.

1b (4a). Lower end of stigma mid vein 1, about under origin of vein 2 and in continuation of the cell spots. ♀ usually upf with the cell spots directed to a point on vein 1 well before the discal spot in space 1b.

1 (2a). Upf with a conspicuous straight row of 4 white spots in spaces 2 to 5. Uncus and gnathos arms connivent. ♂ F 17 mm.

sinensis Mabille 1877: ♂ Shanghai. Fig Leech; Lep Ind; Seitz vol. 1.

Synonyms. *prominens* Moore 1882: ♂ Garhwal: type B.M.

similis Leech 1890: ♀ Chang Yang: type B.M. Homonym by Moore 1881.

B.M. 49 ♂ 34 ♀ Shanghai—S. and W. China. 9 ♂ 7 ♀ N.W. Himalayas (Kulu—Kumaon). 23 ♂ 1 ♀ Sikkim. 20 ♂ 6 ♀ Assam. 7 ♂ S. Shan States.

2a (1). Uph without conspicuous spots.

2 (3). Upf markings narrow and stigma inconspicuous. Uncus and gnathos connivent.

agna. 4 sub-species.

(a). ♂ F 17 mm. ♂ upf markings complete. Unh appearing greenish, usually with dots in spaces 2, 3 and 6.

Sub-sp. **agna** Moore 1865: ♂ Bengal: type B.M. Fig Corbet 1941.

Synonyms. *similis* (Mabille MS) Moore 1881 = *agna*.

balarama Plötz 1882: ♂ Philippines. Copy of MS fig in B.M.

niasica Fruhstorfer 1911: ♂ Nias: type B.M.

B.M. 11 ♂ 7 ♀ Ceylon. 16 ♂ 16 ♀ S. India. 1 ♂ C. India. 1 ♂ Kashmir. 1 ♂ Murree. 1 ♂ 1 ♀ Cutch. 2 ♂ Ganjam. 7 ♂ 4 ♀ Bengal. 14 ♂ 6 ♀ Sikkim. 9 ♂ 3 ♀ Assam. 8 ♂ 8 ♀ Burma. 8 ♂ 2 ♀ Andamans. 11 ♂ 3 ♀ Nicobars. 3 ♂ 1 ♀ Hong Kong. 2 ♂ Yunnan. 8 ♂ 8 ♀ Formosa. 2 ♂ 1 ♀ Hainan. 2 ♂ 3 ♀ Indo-China. 7 ♂ 2 ♀ Siam. 2 ♂ 3 ♀ Malaya. 3 ♂ 1 ♀ Sumatra. 11 ♂ 2 ♀ Nias. 2 ♂ 1 ♀ Siberut. 1 ♂ 2 ♀ Banka. 1 ♂ 3 ♀ Batoe. 14 ♂ 6 ♀ Java. 8 ♂ 8 ♀ Borneo. 9 ♂ 7 ♀ Lombok. 2 ♂ Sumbawa. 1 ♂ 1 ♀ Sumba. 1 ♂ Bawean. 17 ♂ 4 ♀ Philippines. 9 ♂ 9 ♀ Celebes. 1 ♂ Talaut. 1 ♂ 2 ♀ Soela Is.

(b). ♂ F 17 mm. ♂ much darker: upf spots usually absent, reduced in ♀.

Sub-sp. **larika** Pagenstecher 1884: ♂ Amboina: figured.

Synonyms. *ceramica* Plötz 1886: ♀ Ceram. Fig Ribbe 1889.

satriana Mabille 1891: ♂ Amboina.

stictica Fruhstorfer 1911: ♀ Amboina: type B.M.

B.M. 21 ♂ 13 ♀ N. Moluccas. 7 ♂ 4 ♀ S. Moluccas. 7 ♂ 2 ♀ Kei. 3 ♂ 1 ♀ Aru. 1 ♂ Misol.

(c). ♂ F 19 mm. Like *agna*. Upf ♂ usually only 2 instead of 3 apical spots. ♂ ♀ unh markings generally reduced.

Sub-sp. **dingo** nov: ♂ New Guinea, head of Aroa River: type B.M. Fig Waterhouse & Lyell, figs 711, 712 and Waterhouse 1932, plate 34/10, both as *mathias*.

B.M. 1 ♂ 2 ♀ Waigou. 17 ♂ 17 ♀ New Guinea. 7 ♂ 6 ♀ N. Queensland. 23 ♂ 17 ♀ Vulcan, Goodenough, Fergusson, Trobriand, Woodlark, Rossell, Sudest Is.

(d). ♂ F 16 mm. A small edition of *dingo*, but in ♂ upf the dark edging above the brand is sharply defined.

Sub-sp. **agnata** Evans 1934: ♂ New Britain: type B.M.

B.M. 8 ♂ 9 ♀ Bismarcks. 14 ♂ 1 ♀ Solomons. 1 ♀ New Hebrides. 1 ♂ St. Mathias.

3 (2). Upf markings broader, stigma more conspicuous. Uncus ends curved away from gnathos and widely separated.

thrax. 3 sub-species (and 1 in Africa).

(a). ♂ F 16–19 mm. Pale: very variable. Unh discal spots, when present, sub-equal. Ends of uncus bent back at tip.

Sub-sp. **thrax** Hübner 1821: no loc.: ♂ ♀ figured.

Synonym. *midea* Walker 1870: ♀ Cairo. Fig Lep Ind.

B.M. 1 ♂ 1 ♀ Turkey. 10 ♂ 11 ♀ Cyprus. 3 ♂ 6 ♀ Syria. 1 ♀ Palestine. 1 ♂ 3 ♀ Arabia (Lahej, Mecca). 14 ♂ 12 ♀ Cairo. 25 ♂ 8 ♀ Irak. 2 ♂ 5 ♀ Karachi. 1 ♂ Cutch.

(b). ♂ F 16 mm. Darker. Unh usually only the double spot in spaces 4–5 conspicuous, other spots may be indicated by dark markings. Uph usually with a double spot in spaces 4–5.

Sub-sp. **masta** nov: ♂ Imphal, Manipur, 2,000 ft., May 1911: H. C. Tytler: type B.M.

B.M. 2 ♂ Sikkim. 3 ♂ 9 ♀ Manipur.

(c). ♂ F 18 mm. Very much yellower and stigma very conspicuous. Uph and unh unmarked. Ends of uncus not bent back.

Sub-sp. ***flava** Evans 1926: ♂ Tavoy: type B.M.

B.M. 1 ♂ Tavoy. 1 ♂ Penang.

4a (1b). Lower end of stigma nearer base than termen, well before the origin of vein 2 and a line joining the cell spot centres. ♀ generally the cell spots are directed to the spot in space 1b.

4 (5a). Uncus ends curved away from gnathos, but not bent back. Generally large, ♂ F 19 mm., and upf spots well marked.

subochracea. 2 sub-species.

(a). Uph usually unmarked. Unh usually with sub-equal spots in spaces 2, 3, 6 and cell: in DSF with grey areas in centre, towards dorsum and before termen.

Sub-sp. **subochracea** Moore 1878: ♂ Calcutta. Fig Butler 1869 as *mathias*; Elwes & Edwards; Lep Ind; Seitz.

B.M. 14 ♂ 4 ♀ Ceylon. 33 ♂ 4 ♀ S. India. 1 ♂ Bengal. 1 ♂ Sikkim. 1 ♂ Cachar. 8 ♂ 2 ♀ Manipur. 3 ♂ S. Shan States.

(b). Uph usually with a curved row of 3 to 5 discal spots. Unh greener, with conspicuous spots, up to a maximum of 7, one in cell and in spaces 2 to 7, that in space 6 being largest.

Sub-sp. **barneyi** Evans 1937: ♂ Hong Kong District: type B.M. Fig Corbet 1941.

B.M. 1 ♂ Hong Kong. 1 ♂ Yunnan. 1 ♂ N. Shan St. 1 ♂ N. Siam. 1 ♂ 1 ♀ Hainan.

5a (4). Uncus and gnathos ends connivent.

5 (6). Clasp with valva not extending below the cuiller.

mathias. 3 sub-species (occurs also in Africa).

(a). ♂ F 16 mm. Wings more pointed. ♂ upf spots well marked, the spot in space 2 quadrate, not linear as in *agna*. Unh greyer than most species, in DSF with grey patches: spots minute and very variable in number.

Sub-sp. **mathias** Fabricius 1798: ♀ Tranquebar, S. India. Fig correctly by Distant and in Lep Ind.

Synonyms. *julianus* Latreille 1823: ♂ Java.

chaya Moore 1865: ♀ Bengal: type B.M. Fig by Distant is of *contigua*.

consanguis and *ella* Plötz 1883: ♂ Java. Copies of unpublished figs in B.M.

flexilis Swinhoe 1885: ♀ Poona: figured: type B.M. Fig Lep Ind.

B.M. 4 ♂ 4 ♀ Ceylon. 19 ♂ 17 ♀ S. India. 10 ♂ 5 ♀ C. India. 1 ♂ 2 ♀ Mt. Abu. 10 ♂ 9 ♀ Sind. 1 ♂ 2 ♀ Ganjam. 3 ♂ 2 ♀ N.W. Frontier. 1 ♂ Kashmir. 10 ♂ 7 ♀ Punjab. 2 ♂ 1 ♀ United Prov. 1 ♂ Kumaon. 4 ♂ 4 ♀ Bengal. 8 ♂ 1 ♀ Sikkim. 1 ♂ 2 ♀ Assam. 11 ♂ 6 ♀ Burma. 1 ♂ Centr. Nicobars. 3 ♂ 1 ♀ Siam. 9 ♂ 4 ♀ Malaya. 2 ♂ 3 ♀ Sumatra. 2 ♂ Batoe Is. 1 ♂ Siberut. 5 ♂ 2 ♀ Java. 1 ♂ Borneo. 2 ♂ 1 ♀ Mindoro. 1 ♂ Celebes. 1 ♂ Djampea.

1 ♂ Lombok. 2 ♂ Engano. 1 ♂ Sumbawa. 12 ♂ 1 ♀ Sumba. 14 ♂ 1 ♀ Timor sea (S. Flores, Alor, Wetter, Timor, Oinanaisa, Larut). 11 ♂ 8 ♀ Tenimber (flying with *lyelli*).

(b). ♂ F 17 mm. Wings less produced. Upf spots smaller: unh greener and with fewer spots, showing an approach to *agna*.

Sub-sp. **oberthüri** Evans 1937: ♂ Tientsin: type B.M. Fig Pryer; Seitz, vol. 1; Lep Ind; Matsumura 1931; all as *mathias*. Fig Corbet 1941.

B.M. 17 ♂ 15 ♀ Japan. 1 ♂ Korea. 1 ♂ Quelpart Is. 1 ♂ 4 ♀ Loo Choo Is. 7 ♂ 7 ♀ Formosa. 3 ♂ 3 ♀ Hainan. 23 ♂ 20 ♀ China (Pechili, Szechwan, Kwang Tung).

(c). ♂ F 15 mm. Upf and unh markings much reduced.

Sub-sp. **repetita** Butler 1882: ♂ Duke of York Is.: type B.M. Synonym. *parvimacula* Rothschild 1915: ♂ Dampier: type B.M.

B.M. 3 ♂ 1 ♀ New Guinea. 3 ♂ Dampier. 1 ♂ Duke of York Is. 1 ♂ St. Mathias.

6 (5). Clasp with valva extending well below the cuiller. ♂ F 18 mm.

lyelli. 2 sub-species.

(a). Very like *agna dingo*. Unh usually with dots in spaces 2, 3 and 6.

Sub-sp. **lyelli** Rothschild 1915: ♂ Dampier: type B.M. Fig Waterhouse 1932, pl. 34/11 ♀ as *mathias*.

B.M. 1 ♂ 1 ♀ Great Banda Is. 3 ♂ Tenimber. 1 ♂ Obi. 1 ♂ Ternate. 2 ♂ Amboina. 1 ♂ Ceram Laut. 2 ♂ Kei. 24 ♂ 6 ♀ New Guinea. 2 ♂ Dampier. 1 ♂ Goodenough. 1 ♂ Squally Is. 1 ♂ New Georgia. 10 ♂ 6 ♀ Solomons. 19 ♂ 9 ♀ Australia (Wyndham, Port Darwin, Thursday Is., N. Queensland).

(b). ♂ darker, but on basal half of upf and dorsal half of uph with dull orange suffusion. Unh unmarked.

Sub-sp. **mathewi** Evans 1937: ♂ New Hebrides: type B.M.

B.M. 2 ♂ New Hebrides.

7a (1a). ♂ upf without a discal stigma.

7b (9). Unh spots small, those in spaces 4 and 5 not conjoined. ♂ upf with a conspicuous spot in space 1b.

7 (8). Upf spots white: cell spots usually conjoined. Uph with a spot in space 4 and sometimes a dot in space 5. Antennae above, white before club. Uncus arms divergent. ♂ F 23 mm.

assamensis De Nicéville 1882: ♂ Sikkim. Fig De Nicéville 1886; Lep Ind; Matsumura 1931 as *guttatus* form; Corbet 1941.

Synonym. *alice* Plötz 1883: Mergui. Fig in Seitz.

B.M. 1 ♂ 1 ♀ Kasauli. 14 ♂ 14 ♀ Sikkim. 15 ♂ 15 ♀ Assam. 12 ♂ 9 ♀ Burma. 1 ♀ Peninsular Siam. 1 ♂ 1 ♀ Indo-China. 2 ♂ Malaya.

8 (7). Upf spots pale yellow: cell spots separate. Antennae, above, plain. Uncus and gnathos arms connivent. ♂ F 21 mm.

conjuncta. 2 sub-species.

(a). Unh with spotting complete and often with a purple gloss. Uph usually with dots in spaces 2 and 3.

Sub-sp. **narooa** Moore 1878: ♂ Bombay: type B.M.: figured. Fig Lep Ceylon; Lep Ind, as *conjuncta*.

B.M. 6 ♂ 7 ♀ Ceylon. 25 ♂ 18 ♀ S. India.

(b). Unh spotting often reduced or absent, no purple gloss. Uph usually unmarked.

Sub-sp. **conjuncta** Herrich-Schäffer 1869: no loc. Fig Distant 1886 as *narooa*; Rhop Java; Seitz; Corbet 1941.

Synonym. *javana* Mabille 1877: ♂ Java: type B.M.

B.M. 4 ♂ 6 ♀ Assam. 1 ♂ 4 ♀ Burma. 1 ♀ Centr. Nicobars. 2 ♂ 7 ♀ Formosa. 3 ♂ 4 ♀ Malaya. 12 ♂ 6 ♀ Sumatra. 12 ♂ 5 ♀ Nias. 1 ♂ Banka. 8 ♂ 8 ♀ Java. 9 ♂ 9 ♀ Borneo. 12 ♂ 5 ♀ Philippines. 4 ♂ 4 ♀ Lombok. 1 ♂ Sumbawa. 1 ♂ Sumba. 1 ♂ S. Flores. 1 ♂ Alor. 1 ♂ Timor.

9 (7b). Unh spots very large, those in spaces 4 and 5 conjoined to a large single spot. ♂ upf no spot in space 1b. Uncus arms divergent. ♂ F 18 mm.

jansonis Butler 1878: ♂ Japan: type B.M. Fig Pryer 1886; Leech; Seitz; Matsumura 1931.

B.M. 23 ♂ 8 ♀ Japan. 1 ♂ 1 ♀ Korea. 1 ♂ Amur.

M.5. POLYTREMIS Mabille 1904: type *lubricans* Herrich-Schäffer: fixed by author as *contigua* Mabille, which is a synonym of *lubricans*.
Synonym. *Zinaida* Evans 1937: type *nascens* Leech: fixed by author.

1a (8a). Palpi third segment slender, protruding, semi-erect. Antennal club obtuse. Upf cell spots separate or conjoined to figure of 8.
1b (5a). Upf spots in spaces 2, 3, 4 small, well separated. End of aedeagus bifid, spined. ♂ F 17–20 mm.
1c (3a). ♂ upf with a discal stigma.
1 (2). The stigma unbroken, white. Upf 2 cell spots.
mencia. 2 sub-species.
(a). Upf cell spots one above the other. Unh pale greenish ochreous.
Sub-sp. **mencia** Moore 1877: ♂ Shanghai: type B.M. Fig Leech and Seitz.
B.M. 7 ♂ 2 ♀ N. China (Shanghai, Ningpo, Nankow, Chekiang).
(b). Upf lower cell spot nearer base. Unh brown, 5 discal spots.
Sub-sp. **kiraizana** Sonan 1938: ♂ Formosa: figured.
B.M. None.

2 (1). Stigma broken into 2 inconspicuous whitish dashes. ♂ ♀ upf only a single upper cell spot. Unh, and often uph with a straight row of 4 small white spots.
nascens Leech 1894: ♂ W. China: type B.M.: figured. Fig in Seitz.
B.M. 20 ♂ 6 ♀ W. China (Ta Tsien Lou). 2 ♂ C. China (Chang Yang).

3a (1c). ♂ upf without a stigma.
3 (4). ♂ ♀ upf with a single upper cell spot. Unh with a discal row of shining pale purple contiguous spots.
caerulescens Mabille 1876: Thibet. Fig Leech 1894 and in Seitz.
B.M. 55 ♂ 4 ♀ W. China (Ta Tsien Lou, Tsekou).

4 (3). ♂ ♀ upf 2 cell spots.

***theca.** 2 sub-species.

(a). Cilia brown. Unh brown, with sparse greenish ochreous scaling.

Sub-sp. **theca** Evans 1937: ♂ Siao Lou: type B.M.

B.M. 25 ♂ 1 ♀ W. China (Ta Tsien Lou). 1 ♂ S. Shensi.

(b). Blacker, cilia white. Unh more or less overlaid with white scaling.

Sub-sp. **fukia** Evans 1940: ♂ Fukien.

B.M. 6 ♂ 1 ♀ W. China (Ta Tsien Lou). 1 ♂ 1 ♀ W. Szechwan.

5a (1b). Upf discal spots larger, separated by less than their own widths. End aedeagus not bifid.

5b (7). Upf hyaline spots white. Uph usually with conspicuous spots.

5 (6). Upf cell spots equal and exactly one above the other. Aedeagus slender, tapering and spined.

pellucida. 2 sub-species.

(a). Uph with 3 to 5 spots. Upf with 2 apical spots. ♂ F 16–21 mm.

Sub-sp. **pellucida** Murray 1875: ♂ Japan: type B.M. Fig in Seitz, vol. 1.

Synonyms. *quinquepuncta* Mabille 1883: ♂ Japan: type B.M.

sachaliensis Matsumura 1925: ♂ Saghalien. Fig Sonan 1930.

B.M. 42 ♂ 2 ♀ Japan. 2 ♂ Korea. 1 ♂ Shanghai. 1 ♂ "Canton".

(b). Uph and unh unmarked. Upf spots reduced, no spot in space 1b, only 2 apical spots, cell spot not overlapping spot in space 2. ♂ F 16 mm., more produced, as in *zina*, which flies with it.

Sub-sp. **quanta** nov: ♂ Kwangtseh, Fukien: 10th July 1937: J. Klapperich: type B.M.

B.M. Only the type.

6 (5). Upf ♂ lower cell spot elongate basad: ♂ ♀ spot in space 2 not overlapping the cell spots. Aedeagus very broad, unspined. ♂ F 18–20 mm.

***zina** Evans 1932: ♂ Omeishan: type B.M.
Synonym. *zinoides* Evans 1937: ♂ Amur: type B.M.
B.M. 1 ♂ Manchuria. 2 ♂ Amur. 1 ♂ 3 ♀ Kiang Si. 3 ♂ 4 ♀ Fukien. 6 ♂ 4 ♀ W. Szechwan (Ta Tsien Lou). 4 ♂ 2 ♀ Kwanshien.

7 (5b). Upf hyaline spots yellow. Uph hyaline spots inconspicuous, usually only two close together. Upf always a spot in space 1b. ♂ F 18 mm.

lubricans. 2 sub-species.

(a). Upf cell spots usually separate.

Sub-sp. **taiwana** Matsumura 1919: ♂ Formosa. Fig Matsumura 1931.
Synonyms. *kuyaniana* Matsumura 1919: ♂ Formosa. Fig Matsumura 1931.
baibarana Matsumura 1929: ♀ Formosa. Fig Matsumura 1931.
B.M. 1 ♂ Japan. 5 ♂ 2 ♀ Formosa. 2 ♂ 7 ♀ China (Kiang Si, Hon Pe, Fukien, Hunan, Kwei Chow, Hupeh, W. China).

(b). Upf cell spots usually conjoined.

Sub-sp. **lubricans** Herrich-Schäffer 1869: ? loc.
Synonyms. *contigua* Mabille 1877: ♀ Java: type B.M. Fig Lep Ind; Seitz; Rhop Java; Distant (as *chaya*); Corbet 1941.
toona Moore 1878: ♂ Bengal: type B.M.
scortea Mabille 1893: ♂ Java: type B.M.
B.M. 2 ♂ Kwang Tung. 2 ♂ Yunnan. 3 ♂ 3 ♀ Hainan. 1 ♂ 1 ♀ S. India (Coorg, Khandesh). 4 ♂ Bihar. 9 ♂ 9 ♀ Sikkim. 8 ♂ 8 ♀ Assam. 15 ♂ 11 ♀ Burma. 1 ♂ Andamans. 6 ♂ 6 ♀ Siam. 4 ♂ 1 ♀ Tonkin. 7 ♂ 5 ♀ Malaya. 6 ♂ 6 ♀ Sumatra. 16 ♂ 9 ♀ Java. 11 ♂ 11 ♀ Borneo. 4 ♂ 2 ♀ Lombok. 2 ♂ 2 ♀ Sumbawa. 1 ♂ Sumba. 5 ♂ Timor. 1 ♂ Alor. 1 ♂ Pura. 2 ♂ 1 ♀ Bangkei. 12 ♂ 4 ♀ Celebes. 1 ♂ Soela Is.

8a (1a). Palpi third segment short, stout, erect. Antennal club angled.
8b (10a). Upf no spot in space 1b.
8 (9). Upf cell spots separate: apex dark. ♂ F 12 mm.

***minuta** Evans 1926: ♂ Perak: type B.M.
B.M. 1 ♀ Manipur. 1 ♂ Karens. 1 ♀ Tavoy. 1 ♂ Perak.

9 (8). Upf single large cell spot: apex white. ♂ F 19 mm.
***annama** Evans 1937: ♂ Annam: type B.M.
B.M. Only the type.

10a (8b). Upf with a conspicuous spot in space 1b: single large cell spot. Uph with 3 conspicuous spots.
10 (11). H tornal cilia white. Uncus and gnathos arms convergent. ♀ with long, pointed ostium bursae. F hyaline spots white.
discreta. 2 sub-species.
(a). Large, ♂ F 21 mm.
Sub-sp. **felicia** Evans 1932: ♂ W. China: type B.M.
B.M. 22 ♂ 17 ♀ W. Szechwan (Ta Tsien Lou). 1 ♂ Hong Kong. 2 ♂ Yunnan.
(b). Smaller, ♂ F 18 mm.
Sub-sp. **discreta** Elwes & Edwards 1897: ♂ Khasi Hills: type B.M.: figured. Fig Lep Ind and Seitz.
Synonym. *himalaya* Evans 1926: ♂ Simla: type B.M.
B.M. 9 ♂ 4 ♀ N. W. Himalayas (Murree–Nepal). 20 ♂ 5 ♀ Sikkim. 12 ♂ 10 ♀ Assam. 19 ♂ 14 ♀ Burma (to Papua). 1 ♂ N. Siam. 1 ♂ 1 ♀ Tonkin. 1 ♂ Malaya.

11 (10). H tornal cilia yellow. Uncus and gnathos arms divergent. ♀ ostium bursae not long and pointed. ♂ F 18–19 mm.
eltola. 3 sub-species.
(a). Upf spots white: spot in space 2 square, smaller and widely separated from the spot in space 3.
Sub-sp. **tappana** Matsumura 1931: ♂ Formosa. Fig Matsumura 1931.
B.M. 3 ♂ 1 ♀ Formosa.
(b). Upf spots pale yellow: spot in space 2 elongate, the upper, outer angle rounded and approximate to the spot in space 3.
Sub-sp. **eltola** Hewitson 1869: ♂ Darjiling: type B.M. Fig Lep Ind and Seitz.
B.M. 11 ♂ 3 ♀ N.W. Himalayas (Murree–Kumaon).

24 ♂ 11 ♀ Sikkim. 19 ♂ 7 ♀ Assam. 12 ♂ 4 ♀ Burma (to Taok plateau).

(c). Upf yellow spots reduced: spot in space 2 midway between the cell spot and the spot in space 3, widely separated from both.

Sub-sp. **corbeti** Evans 1927: ♂ Malaya (Fraser's Hill): type B.M.

B.M. Only the type.

M.6. BAORIS Moore 1881: type *oceia* Hewitson: fixed by author.

1a (5). ♂ uph with a black recumbent "paintbrush" overlying a scent pouch in the cell and correlated with a polished grey dorsal area unf, in the centre of which there is an oval brand. Upf hyaline spots white and cell spots not conjoined. Clasp with a spur at back of cuiller.

1b (4). Aedeagus spined on right side.

1c (3). Top of cuiller rounded.

1 (2). Unh densely and upf sparsely overlaid with light greenish ochreous scales. Upf fully spotted. As with most species of the *Gegenes* group in China, the wings are broader and paler, the palpi rather sub-erect and the antennal club more obtuse. ♂ F 18 mm.

leechii Elwes & Edwards 1897: ♂ Kiu Kiang: type B.M.: figured. Fig Leech 1894 as *oceia*.

B.M. 1 ♂ Shanghai. 1 ♂ S. Shensi. 1 ♀ Hunan. 1 ♂ Kiang Si. 5 ♂ 3 ♀ Fukien. 22 ♂ 11 ♀ W. Szechwan (Ta Tsien Lou, etc.).

2 (1). Without paler super-scaling. ♂ F 20 mm.

farri. 2 sub-species.

(a). Upf usually with fully developed spots, 2 in cell, 3 apical and 3 discal, and, in ♀, a spot in space 1b, appearing sometimes as a dot in the ♂. Unh rather pale silky brown. In Sikkim, Hong Kong and perhaps elsewhere, there occur specimens with the spotting much reduced rendering them difficult to separate from *penicillata* and *oceia*.

Sub-sp. **farri** Moore 1878: ♀ Calcutta: type B.M. Fig Lep Ind; Corbet 1941.

Synonym. *sikkima* Swinhoe 1890: ♂ Sikkim: type B.M.
B.M. 10 ♂ 6 ♀ S. India. 1 ♂ 1 ♀ C. India. 1 ♂ Kumaon. 1 ♂ 2 ♀ Bengal. 27 ♂ 18 ♀ Sikkim. 27 ♂ 13 ♀ Assam. 26 ♂ 14 ♀ Burma. 11 ♂ 3 ♀ Siam. 3 ♂ Indo-China. 6 ♂ 2 ♀ China (Hong Kong, Kiang Si). 5 ♂ 1 ♀ Hainan. 2 ♂ Malaya. 3 ♂ Sumatra.
(b). Darker, markings reduced: usually only a lower cell spot, 2 apical and 2 discal spots.
Sub-sp. **scopulifera** Moore 1883: ♂ Andamans: type B.M.
B.M. 24 ♂ 12 ♀ Andamans. 1 ♂ 2 ♀ Centr. Nicobars.

3 (1c). Top of cuiller elongate, pointed: back spur short. Very like *farri*. ♂ upf usually with only a lower cell spot, and the dots in spaces 4, 7 and 8 absent: ♀ fully spotted. ♂ F 20 mm.
oceia Hewitson 1868: ♂ Philippines: type B.M. Fig Rhop Java and Seitz. Figs of De Nicéville 1883 and Elwes & Edwards 1897 (genitalia) are referable to *farri*.
Synonyms. *neophytes* Mabille 1883: ♀ Philippines: type B.M.
simillima Elwes & Edwards 1897: ♂ Pulo Laut: type B.M.: figured.
jetavana Fruhstorfer 1911: ♀ Bazilan: type B.M.
B.M. 3 ♂ 1 ♀ Burma (Tavoy, Mergui). 2 ♂ 1 ♀ Malaya. 1 ♂ 1 ♀ Sumatra. 1 ♂ 1 ♀ Nias. 4 ♂ 5 ♀ Java. 3 ♂ 1 ♀ Borneo. 1 ♂ 1 ♀ Philippines.

4 (1b). Aedeagus not spined on right side. ♂ F 18 mm.
penicillata. 4 sub-species.
(a). Clasp with very short back-spur to cuiller. Upf no cell spots, discal and apical spots reduced.
Sub-sp. **penicillata** Moore 1881: ♂ Ceylon: ? type lost.
B.M. 2 ♂ 1 ♀ Ceylon. 2 ♂ No loc., ? Ceylon.
(b). ♂ ♀ upf unmarked. Back-spur of cuiller normal.
Sub-sp. **unicolor** Moore 1883: ♂ Darjiling: type B.M. Fig Lep Ind.
B.M. 27 ♂ 20 ♀ Sikkim. 1 ♂ 4 ♀ Assam. 1 ♂ Siam. 1 ♂ Tonkin.
(c). Differs from *penicillata* only in the back spur of the cuiller being normal.

Sub-sp. **chapmani** Evans 1937: ♂ Thaungyin: type B.M.
B.M. 1 ♂ 4 ♀ Assam. 12 ♂ 4 ♀ Burma (to Tavoy). 1 ♂ Siam. 2 ♂ Indo-China. 1 ♀ Java (? wrong label or aberration of *oceia*). (1 ♂ 1 ♀ Malaya, coll Cowan.)
(d). Constantly darker than *chapmani*.

Sub-sp. **brenda** Evans 1937: ♂ Kina Balu: type B.M.
B.M. 29 ♂ 7 ♀ Borneo.

5 (1a). ♂ without secondary sexual characters. Upf spots yellow and fully developed: cell spot single, across cell. ♂ F 22 mm.

pagana De Nicéville 1887: ♂ Sikkim: figured. Fig Lep Ind (but plate 828/3a is a ♀ *cahira*) and Seitz.
B.M. 1 ♂ Bengal. 26 ♂ 13 ♀ Sikkim. 14 ♂ 8 ♀ Burma (Karens, Dawnas). 2 ♂ Borneo.

M.7. CALTORIS Swinhoe 1893: type *kumara* Moore: fixed by Swinhoe 1913.
Synonyms. *Milena* Evans 1913: type *plebeia* De Nicéville: sole species included.

1a (14a). Wings comparatively broad and termen F even.
1b (10a). Upf with more or less well-marked cell spots.
1 (2a). ♂ upf with a discal stigma.

brunnea. 2 sub-species.
(a). Smaller, F 20 mm., with smaller spots and uppermost apical spot usually absent. Cilia whiter.

Sub-sp. **caere** De Nicéville 1891: ♂ Thaungyin: figured. Fig Lep Ind as *brunnea*.
B.M. 1 ♂ 1 ♀ Assam. 22 ♂ 8 ♀ Burma. 1 ♂ S. Annam. 1 ♂ Malaya. 1 ♀ Sumatra. 1 ♂ 1 ♀ Banka. 9 ♂ 2 ♀ Borneo.
(b). Larger, F 21 mm., with larger and more complete spots. Cilia yellower.

Sub-sp. **brunnea** Snellen 1876: ♂ Java: figured. Fig Rhop Java and Seitz, but fig on pl. 173 c is of *philippina*.
Synonyms. *nirwana* Plötz 1882: ♀ Java. Fig Swinhoe 1908 and Seitz.
sodalis. Mabille 1893: ♂ Borneo: type B.M.
B.M. 30 ♂ 11 ♀ Java. 2 ♂ 2 ♀ Bali. 6 ♂ 1 ♀ Lombok. 1 ♂ Sumbawa.

2a (1). ♂ upf without discal stigma.
2 (3a). Upf upper cell spot always rather larger than the lower cell spot. Unh spots in spaces 2 and 3, which may be obscured by a broad central band of white scaling, conspicuous in the DSF. ♂ F 20 mm.

canaraica Moore 1883: ♂ N. Kanara: type B.M. Fig Lep Ind.
Synonym. *yatesi* Evans 1929: ♂ Coorg: type B.M.
B.M. 43 ♂ 15 ♀ S. India (N. Kanara, Coorg, Mysore, Madras).

3a (2). Upf upper cell spot (often absent) always smaller than lower spot.
3 (4a). Antennal club aberrant: nudum 7/4 instead of 7/7 to 8/8 as in rest of genus. Cilia bright yellow. Large, ♂ F 22 mm.

aurociliata Elwes & Edwards 1897: ♂ Sikkim: type B.M.: figured. Fig Lep Ind and Seitz.
B.M. 3 ♂ Sikkim. 3 ♂ Manipur. 7 ♂ 1 ♀ Naga Hills.

4a (3). Antennal club normal. The next 6 species can only be identified with certainty by examining the genitalia.
4b (9). Top of cuiller rounded, valva projecting.
4c (7a). Cuiller and valva sub-equal in length.
4 (5a). Aedeagus, seen ventrally, tapered and ends of gnathos expanded ovally. Cuiller and valva not deeply divided.

sirius. 4 sub-species.
(a). Cilia bright yellow. Above, sparsely, and unh densely, scaled ochreous brown. Upf no spot in space 1b, cell spots small, 3 apical spots. ♂ F 18 mm.
Sub-sp. ***chimdroa** Evans 1926: ♂ Chimdro Valley, S.E. Thibet: type B.M.
B.M. 1 ♂ type (2 ♂ coll F. M. Bailey).
(b). Cilia grey. Upf with a spot in space 1b: cell spots conspicuous: 2 apical spots. Unh chocolate. ♂ F 21 mm.
Sub-sp. ***sirius** Evans 1926: ♂ Karens: type B.M.: figured.
Synonym. *sirina* Evans 1932: ♂ Manipur: type B.M.
B.M. 15 ♂ 4 ♀ Assam (some nearer *chimdroa*). 21 ♂ 9 ♀ Burma (Karens, Dawnas). 1 ♂ Siam. 1 ♂ Tonkin.

(c). Like *sirius*, but upf markings narrow and much reduced: cell spots inconspicuous and no spot in space 1b.

Sub-sp. **fusca** Evans 1932: ♂ Malaya: type B.M.

B.M. Only the type.

(d). Smaller, ♂ F 17 mm. Upf as *sirius*, but no spot in space 1b. Unh with ochreous brown scaling. Seen ventrally the tips of the uncus are conspicuous as in *cahira* and *bromus*, whereas in *sirius* they are insignificant. More material may indicate that *kalparia* is a species.

Sub-sp. **kalparia** Evans 1937: ♂ Java: type B.M.

B.M. 1 ♂ 1 ♀ Banka. 3 ♂ Java. 1 ♂ Borneo.

5a (4). Aedeagus not tapered and ends of gnathos not expanded at all. ♂ upf no spot in space 1b.

5 (6). Cuiller and valva deeply divided. Above dark brown and unh chocolate or scaled ochreous brown.

cahira. 3 sub-species.

(a). Pale and large, ♂ F 20 mm., with a tendency for the upper cell spot to be absent and more rarely the apical and upper discal spot.

Sub-sp. **carina** Evans 1937: ♂ Siao Lou: type B.M. Fig Leech as *austeni*.

Synonym. *confuciana* Evans 1937: ♂ Omeishan: type B.M.

B.M. 2 ♂ 1 ♀ Fukien. 2 ♂ Hupeh. 31 ♂ 8 ♀ W. Szechwan. 3 ♂ 1 ♀ Yunnan.

(b). Darker and smaller, ♂ F 17–19 mm. Upf spots better marked.

Sub-sp. **austeni** Moore 1883: ♂ Khasias: type B.M. Fig Lep Ind, but ♂ is *cahira*: Elwes & Edwards fig of genitalia is of *confusa*.

Synonyms. *fallacina* Mabille 1891: ♀ Assam.
onchisa Swinhoe 1893: ♂ Khasias: type B.M.
carna Evans 1926: ♂ Rangoon: type B.M.
cara Evans 1932: ♂ Manipur: type B.M.

B.M. 2 ♂ Kwang Tung. 1 ♀ Formosa. 4 ♂ 5 ♀ Hainan. 9 ♂ 6 ♀ Sikkim. 16 ♂ 11 ♀ Assam. 18 ♂ 13 ♀ Burma. 2 ♂ 3 ♀ Siam. 1 ♀ Indo-China. 3 ♂ Malaya.

(c). Dark and large, ♂ F 20 mm. ♂ upf cell spots well marked, but discal spot in space 3 absent.

Sub-sp. **cahira** Moore 1877: ♂ Andamans: type B.M.: figured. Fig Lep Ind. Elwes & Edwards 1897 fig of genitalia is of *sirius*. Fig in Seitz, upperside is *austeni* and underside is *cormasa*.
B.M. 24 ♂ 14 ♀ Andamans. 1 ♂ 3 ♀ Central Nicobars.

6 (5). Cuiller and valva not deeply divided. Smaller, ♂ F 16 mm. Above, clothed greenish yellow hairs and unh with similar scaling.
***tenuis** Evans 1932: ♂ Ataran: type B.M.
B.M. 13 ♂ 1 ♀ Burma (Ataran to Tavoy).

7a (4c). Valva produced, longer than cuiller.
7 (8). Valva produced downwards, nearly meeting at back of uncus. Ends of gnathos enlarged to broad triangles, the outer angles of which project beyond the uncus. ♂ F 20 mm.
***bromus.** 2 sub-species.
(a). ♂ upf typically unmarked: ♀ usually with reduced markings.
Sub-sp. **yanuca** Fruhstorfer 1911: ♂ Formosa: type B.M.
Synonyms. *giranna* Matsumura 1919: ♂ Formosa. Fig Matsumura 1921.
mumon Matsumura 1929: ♀ Formosa.
ranrunna Sonan 1936: ♂ Formosa: figured.
B.M. 2 ♂ 3 ♀ Formosa. 1 ♀ Okinawa.
(b). Above comparatively pale, with well-developed spots upf: often a spot in space 1b, which spot is always present unf. ♀ unh sometimes with spots in spaces 2 and 3.
Sub-sp. **bromus** Leech 1894: ♀ Chia Kou Ho: type B.M.: figured. Fig in Seitz.
Synonym. *reducta* Evans 1932: ♂ Borneo: type B.M.
B.M. 1 ♀ Chekiang. 4 ♂ 4 ♀ W. Szechwan. 4 ♂ 3 ♀ Hong Kong. 1 ♂ 1 ♀ Yunnan. 22 ♂ 20 ♀ Assam. 13 ♂ 6 ♀ Burma. 4 ♂ 2 ♀ Indo-China. 2 ♂ Malaya. 1 ♀ Sumatra. 1 ♂ 2 ♀ Java. 2 ♂ Borneo. 1 ♀ Sumba. 1 ♂ Alor. 1 ♂ Celebes.

8 (7). Valva produced forward towards head. Ends of gnathos enlarged to comparatively small equilateral triangles. Darker and usually with reduced markings, particularly in the absence of the upper cell spot and the spot in space 3. ♂ upf or unf no spot in space 1b. ♂ F 18–20 mm.

***confusa** Evans 1932: ♂ Ataran: type B.M.
B.M. 31 ♂ Sikkim. 9 ♂ 2 ♀ Assam. 6 ♂ Ataran. 1 ♂ Tavoy.

9 (4b). Dorsal part of cuiller conspicuously produced, valva not projecting. ♂ upf spot in space 2 always quadrate and midway between the lower cell spot and the spot in space 3: upper cell spot often absent and no spot in space 1b. Unh densely overlaid ochreous brown scales and often with a purple flush. ♂ F 18 mm.

cormasa Hewitson 1876: ♂ Borneo: type B.M. Fig as *moolata* by Distant: Lep Ind: Rhop Java.
Synonyms. *moolata* Moore 1878: ♂ Tenasserim: type B.M.
dravida Mabille 1878: ♂ India: type B.M.
B.M. 4 ♂ 4 ♀ Assam. 20 ♂ 13 ♀ Burma. 4 ♂ 1 ♀ Siam. 1 ♂ Tonkin. 3 ♂ 1 ♀ Hainan. 16 ♂ 7 ♀ Malaya. 8 ♂ 11 ♀ Sumatra. 2 ♂ 1 ♀ Banka. 3 ♂ 15 ♀ Nias. 1 ♂ 2 ♀ Batoe. 9 ♂ 6 ♀ Java. 32 ♂ 19 ♀ Borneo. 9 ♂ 5 ♀ Philippines.

10a (1b). Upf without cell spots.
10b (13). ♂ unf without a tuft.
10c (12). Unh densely overlaid with ochreous brown scales.
10 (11). Outer edge of valva rounded: gnathos tops not enlarged: aedeagus not tapered.

kumara. 4 sub-species.
(a). Large, ♂ F 21 mm., and dark. Cilia H ochreous.
Sub-sp. **lanka** Evans 1926: ♂ Ceylon: type B.M. Fig Lep Ceylon as *kumara*.
B.M. 21 ♂ 20 ♀ Ceylon.
(b). ♂ F 19 mm., paler. Cilia H greyer. ♂ upf sometimes a spot in space 1b and ♀ unh sometimes spots in spaces 2 and 3. Valva less produced.
Sub-sp. **kumara** Moore 1878: ♀ N. Kanara: type B.M. Fig Lep Ind.
B.M. 20 ♂ 21 ♀ S. India (N. Kanara, Bombay—Trevandrum).

(c). ♂ F 20 mm.: like *kumara*. Uncus and gnathos tips much prolonged. ♀ upf more conspicuously marked, usually 2 spots in space 1b.

Sub-sp. **moorei** Evans 1926: ♂ Sikkim: type B.M.

B.M. 16 ♂ 15 ♀ Sikkim. 13 ♂ 13 ♀ Assam. 6 ♂ 11 ♀ Burma (S. Shan St.—Dawnas).

(d). Large, ♂ F 21 mm., wings elongate. H cilia yellow. Upf markings reduced. Genitalia much as in *moorei*.

Sub-sp. **elongata** Evans 1932: ♂ Borneo: type B.M. Fig as *kumara* in Rhop Java and Seitz.

B.M. 10 ♂ 1 ♀ Java. 21 ♂ 1 ♀ Borneo. 1 ♂ 1 ♀ Lombok.

11 (10). Outer edge of valva angled: gnathos tips somewhat enlarged: aedeagus tapered. Genitalia closely resemble those of *sirius kalparia*, but valva is more pronounced. Superficially like *kumara moorei*: ♀ markings much less conspicuous. ♂ F 20 mm.

***malaya** Evans 1926: ♂ Mergui: type B.M.

Synonym. *javana* Evans 1932: ♂ Java: type B.M.

B.M. 1 ♂ Ataran. 5 ♂ 1 ♀ Mergui. 8 ♂ 2 ♀ Malaya. 1 ♂ 2 ♀ Sumatra. 5 ♂ Java. 1 ♂ Borneo.

12 (10c). Unh with the basal half, and unf costa, conspicuously whitened or glossed pale purple. Upf as *kumara*, but ♀ has no spot in space 1b. ♂ F 21 mm.

tulsi. 2 sub-species.

(a). Upf spots better developed, apical spots present.

Sub-sp. **tulsi** De Nicéville 1883: ♂ Sikkim: figured. Fig Lep Ind.

B.M. 1 ♂ Bhutan. 8 ♂ 1 ♀ Sikkim. 17 ♂ 5 ♀ Assam. 23 ♂ 6 ♀ Burma. 1 ♂ 1 ♀ Yunnan. 1 ♂ Siam. 1 ♂ Malaya.

(b). Upf spots smaller, apical spots absent.

Sub-sp. **jolanda** Plötz 1886: ♂ Java. Fig Rhop Java and Seitz.

B.M. 1 ♂ 1 ♀ Sumatra. 17 ♂ 13 ♀ Java. 1 ♂ Borneo.

13 (10b). ♂ unf with an upturned tuft of dark hairs from dorsum, near base. Unh chocolate. Upf as *kumara*, but unf with a conspicuous white area mid space 1b. ♂ F 18 mm.

plebeia De Nicéville 1887: ♂ Sikkim: figured. Fig Lep Ind and Rhop Java.
Synonym. *mormo* Mabille 1893: ♂ Java: type B.M. Fig in Seitz.
B.M. 21 ♂ 2 ♀ Sikkim. 11 ♂ 2 ♀ Burma. 1 ♂ 1 ♀ Malaya, 1 ♂ Java. 3 ♂ 1 ♀ Borneo.

14a (1a). Wings more elongate and termen F excavate at end of vein 2. Uncus broader: valva not projecting beyond cuiller.
14b (17). Upf spotted.
14c (16). Upf ♂ ♀ with a spot in space 1b.
14 (15). Upf without cell spots. Unh with olive green scaling. ♂ F 18–20 mm.

philippina. 2 sub-species.
(a). Upf apical spots and upper discal spot, in space 4, usually present.

Sub-sp. **philippina** Herrich-Schäffer 1869: ? loc. Fig Semper 1892; Elwes & Edwards 1897; Seitz (also as *brunnea*).
Synonyms. *seriata* Moore 1878: ♀ Ceylon: type B.M. Fig Lep Ceylon.
belli Evans 1932: ♂ N. Kanara: type B.M.
B.M. 23 ♂ 1 ♀ Ceylon. 16 ♂ 16 ♀ S. India. 2 ♂ Sikkim. 2 ♂ Malaya. 1 ♂ Nias. 14 ♂ 6 ♀ Philippines. 2 ♂ 1 ♀ Talaut. 3 ♂ 3 ♀ Celebes. 14 ♂ 2 ♀ Sula Is.
(b). Upf markings reduced: ♂ apical and upper discal spot usually absent.

Sub-sp. **subfenestrata** Röber 1891: ♂ Kei Is.
B.M. 15 ♂ 6 ♀ Batjan. 5 ♂ 3 ♀ Ternate. 3 ♂ 1 ♀ Halmaheira. 1 ♀ Obi. 3 ♂ 2 ♀ Amboina. 4 ♂ 4 ♀ Buru. 3 ♂ 5 ♀ Ceram. 12 ♂ 4 ♀ Kei Is. 1 ♂ Teoor. 1 ♂ Misol. 1 ♂ Waigou. 15 ♂ 5 ♀ New Guinea. 4 ♂ 4 ♀ New Ireland. 9 ♂ 4 ♀ Solomons.

15 (14). Upf with 2 cell spots. Smaller, ♂ F 18 mm.

***mehavagga** Fruhstorfer 1911: ♂ S. Celebes: type B.M.
B.M. 9 ♂ Celebes. 1 ♂ Sula Mangoli. 1 ♂ Buru.

16 (14c). ♂ upf no spot in space 1b: 1 or 2 cell spots may be present. ♂ F 25 mm., large.

beraka Plötz 1885: ♂ Celebes: copy of MS fig in B.M.
Synonyms. *gyas* Mabille 1891: ♂ Minahassa: MS fig in B.M.
robusta Elwes & Edwards 1897: ♂ Sangir: type B.M.: figured. Fig in Seitz.
B.M. 3 ♂ Celebes. 1 ♂ Sangir. 1 ♂ Sula Besi.

17 (14b). Above, unmarked. Unh with a more or less well-developed broad white band.
boisduvalii. 2 sub-species.
(a). Large, ♂ F 25 mm. Unh band conspicuous.
Sub-sp. **boisduvalii** Felder 1867: ♂ Amboina: figured.
Synonym. *hasoroides* Elwes & Edwards 1897: ♂ Halmaheira: figured. Fig in Seitz.
B.M. 1 ♂ Ceram. 1 ♀ Batjan. 1 ♀ Amboina. 2 ♀ New Guinea.
(b). Small, ♂ F 18 mm. Of the 4 ♂ in the B.M. 2 have the central portion of the white band present unh: in the other 2 it is vestigial.
Sub-sp. **hilda** Evans 1937: ♂ Admiralty Is.: type B.M.
B.M. 4 ♂ Admiralty Is.

M.8. ITON De Nicéville 1895: type *semamora* Moore: fixed by author.

1 (2). Uph tornal quarter white. ♂ unf with a tuft of upturned hairs from near the base of the dorsum.
semamora. 2 sub-species.
(a). ♂ F 18 mm. There are 2 seasonal forms. The dry season form (*semamora*) lacks the spot in space 1b, upf: uph the white area extends along the termen to vein 2: unh terminal dark border very narrow. The wet season form (*adamsoni*) has a spot in space 1b, upf: uph the white area restricted, extending along the termen only as far as vein 1: unh terminal dark border much broader.
Sub-sp. **semamora** Moore 1866: ♀ Bengal: type B.M. Fig Lep Ind and Seitz.
Synonym. *adamsoni* Swinhoe 1913: ♂ Burma: figured.
B.M. 3 ♂ 3 ♀ Sikkim. 18 ♂ 10 ♀ Burma. 5 ♂ 6 ♀ Siam. 1 ♀ Tonkin. 1 ♂ 1 ♀ Malaya.

(b). ♂ F 20 mm. Upf spots reduced, absent in space 1b; spot in space 2 narrow, rectangular: dot in space 3 and usually only a single sub-apical dot. Uph as *semamora* DSF. Unf no diffused pale area in space 1b.

Sub-sp. **barea** Hewitson 1866: ♀ Sumatra: type B.M.
Synonym. *barina* Evans 1932: ♂ Borneo: type B.M.
B.M. 2 ♂ 3 ♀ Sumatra. 19 ♂ 14 ♀ Borneo.

2 (1). Uph with or without a restricted white discal area, which does not reach the tornus. ♂ unf no hair tuft. ♂ F 20 mm.

watsonii De Nicéville 1890: ♂ Kalewa, Chindwin: figured. Fig Lep Ind and Seitz.
B.M. 20 ♂ 14 ♀ Burma (Tilin Yaw to Thaungyin). 1 ♂ 1 ♀ Siam.

APPENDIX A

LIST OF THE PRINCIPAL CONTRIBUTORS TO THE COLLECTION AND TO THE PUBLISHED LITERATURE

Adams, H. J.

1912. Bequeathed a large general collection, wherein was included a part of the Van der Poll collection.

Archbald, W.

1926. Bequeathed a collection made by him in Burma from localities previously not well known.

Aurivillius, C.

1882. *K. Svenska Vet-Ak Handlingar* 19: an important review of the Lepidoptera in the Museum Ludovicae Ulricae, which were described by Linnaeus.

1898. *Ent. Tidsk.* 18: a paper on the Fabrician types in the Copenhagen Museum.

Bailey, F. M.

Travelled 1910–30 in the Mishmi and Abor countries, and in S.E. Thibet. Presented many specimens captured by him, including the types of several new species. Lists of his captures were published in the *Journal of the Bombay Nat. Hist. Soc.* by R. South (1912) and W. H. Evans (1914).

Bell, T. R.

1897. *J. Bombay Nat. Hist. Soc.*, in collaboration with J. Davidson and E. H. Aitken, "Butterflies of N. Kanara": descriptions and figures of early stages.

1909–27 (l.c.): "Common Butterflies of the Plains of India": detailed descriptions of early stages and habits.

1933. Presented series of Hesperiidae caught or bred by him in the N. Kanara district of South India.

Bergsträsser, J. A. B.

1779–80. *Nomenclatur und Beschreibung der Insecten* 2: European species only.

Billberg, G. J.

1820. *Enumeratio Insectorum*: European species only.

Boisduval, J. A.

1882. *Voyage de l'Astrolabe*: described 2 genera and 10 species from New Guinea and Amboina.
1834. *Icones Hist. Lep.*
1840. *Genera et Index Methodicus*: both concerned only with European species.
1931. His collection, containing many of his types, was acquired as part of the Oberthür collection.

Bremer, O. & Grey, W.

1853. *Schmett. N. China*: 6 new species.

1864. *Lep. Ost. Siberia*: figured the new species described by them.

Butler, A. G.

1866–1902. Described from the B.M. 3 genera and 41 species in various journals.
1869. *Catalogue of the Lepidoptera in the B.M. described by Fabricius*: accompanied by a few figures.
1870. *Ent. Monthly Mag.* 7: Genera of Hesperiidae in the B.M.
1874. *Lep. Exotica*: figured many of the species that he had previously described.

Corbet, A. S.

1941. *Hong Kong Naturalist* 10: figures of the *Gegenes* Group occurring in Hong Kong.

Cramer, P.

1775–80. *Papillons Exotiques* 1 to 4 (plate 305): described and figured 5 Hesperiids from the Indian Region. For dates of publication see Kirby, 1897, *Ent. Monthly Mag.* 14: 278. (See also Stoll, C.)

Crowley, P.

1901. Bequeathed a considerable general collection. Many of the locality labels have been found to be incorrect.

Distant, W. L.

1886. *Rhopalocera Malayana*: a complete account with coloured figures of all the Malayan species known to him, including

8 new genera and 9 new species. A few of his types are in the B.M.

Doherty, W.

1878–93 and 1895–8. Collected in India, Burma, the Indo–Malayan Archipelago and New Guinea. A great deal of his material has come to the B.M. with the Elwes, Oberthür and Rothschild collections. In 1886–92 he published (*Journ. Asiatic Soc. Bengal* 55, 58 & 60) papers on the butterflies of Kumaon, Assam, Engano, Sumba and Sumbawa, describing 1 new genus and 7 species.

Donovan, E.

1800. *Insects of India* and, 1805, *Insects of New Holland*: contain figures of some of the species described by Linnaeus and Fabricius.

Edwards, W. H.

1862 & 1866. *Proc. Acad. Nat. Sci. Philadelphia* 1 & 6: 2 new species as American, which have since been found to inhabit the Oriental Region (see Evans, 1935, *Stylops* 4: 100).

Elwes, H. J.

1897. *Revision of the Oriental Hesperiidae* (in collaboration with J. Edwards): 4 new genera and 94 species, most of which were figured as well as some other species that had not been figured previously. The genitalia of many species were figured and good keys were given to the species in each genus. In 1902 his types and part of his collection were presented. The rest of his collection has come to the B.M. with the Joicey and Oberthür collections.

Erschoff, N.

1874. *Lep. Turkestan*: 1 new species.

Esaki, T.

1931 & 1932. *Zephyrus*: figured various species from Formosa.

Esper, E. J. C.

1777–90. *Die Schmetterlinge, etc.* of Europe: figures of all species, describing 6 new species. For dates of publication, see Sherborn 1901, *Ann. Mag. Nat. Hist.* (7) 7.

Evans, W. H.

1912. *J. Bombay Nat. Hist. Soc.*, List of Indian Butterflies: 1 new genus and 1 new species of Hesperiidae.

1922–6. (l.c.) *Butterfly collecting in India* and *The Identification of Indian Butterflies:* uncoloured plates and descriptions of 4 new genera and 37 new species of Hesperiidae. Published in book form in 1927.

1932. Second edition of *The Identification of Indian Butterflies*, in book form: 3 new genera and 98 new species of Hesperiidae.

1934–7. *Entomologist*, Indo–Australian Hesperiidae: 4 new genera and 161 species and subspecies.

1904–43. 28 papers in various journals describing 1 new genus and 59 species of Oriental Hesperiidae.

1932. Collection, presented to B.M., with all types, and containing material from India, Burma, Malaya and Australia, where a large number of specimens were obtained for the B.M. from Dr. G. A. Waterhouse and other collectors, as well as from the Adelaide Museum.

Fabricius, J. C.

1775. *Syst. Ent.*: 7 new species.

1787. *Mantissa Ins* 2: 2 new species.

1793. *Ent. Syst.* 3: 1 new genus (*Hesperia*) and 7 species.

1798. *Ent. Syst. Supplementum*: 4 new species.

1807. Illiger's *Mag. Insektenkunde* 6: 1 new genus.

Some of the species were described from Sir Joseph Banks' collection, which was presented to the B.M. by the Linnean Society of London in 1863. Others were described from specimens figured in Jones's Icones, an unpublished work, which is now in the Hope Museum at Oxford.

Felder, C. & R.

1859–68. Various journals: 4 new genera and 30 species.

1867. *Reise Novara*, Zool. (2) 2: 1 new genus and 18 new species, described and figured.

A portion of the Felders' collection came to the B.M. with the Rothschild bequest and another portion with the Kaden collection forming part of the Godman and Salvin collection.

Ferrar, M. L.

1946. Col. Ferrar's collection from the Andaman and Nicobar islands was purchased.

Freyer, C. F.

1838. *Neuere Beiträge*, 3: contains description of 1 new species.

Fruhstorfer, H.

1905–16. Numerous papers, of which the most important comprised a revision of the Indo-Australian Hesperiidae in *Iris* (1910–11). He published 269 names for new species and subspecies.
1938. His collection purchased, including his types.

Geyer, C.

1827–8. Continued the publication of Hübner's *Sammlung Europ. Schmett.* after his death and is the author of the name of one species.

Godman, F. du C. & Salvin, O.

1914. Godman, after the death of Salvin, presented their joint collection, which comprised principally material from America, but also contained a considerable quantity of Oriental material, as well as the Kaden collection, containing a few of Herrich-Schäffer's and Felders' types.

Graves, P. P.

1925. *Trans. Ent. Soc., London*, 1925: 17: Rhopalocera and Grypocera of Palestine and Trans-Jordania.
1937. Near Eastern collection purchased.

Groum Grishmaïlo, G. J.

1891 & 1894. *Horae Ent. Soc. Ross*: 3 species from N. Asia. Portions of his collection came to the B.M. through the Elwes collection.

Guérin-Méneville, F. E.

1831. *Voyage of the Coquille* 2 (2) described and figured 2 species from New Guinea.
1843. in Delessert, *Voy. Ind.* 2: described and figured 9 species from S. India.

Hampson, G. F.

1888. *J. Asiat. Soc. Bengal*: an account of the butterflies of the Nilgiri Hills, S. India, including a new Hesperiid.
1889. Presented his S. India collection to the B.M.

Hemming, F. (formerly A. F.).

1932. Various papers on nomenclature and on the butterflies of Palestine, etc.: has published new names for 2 genera and 9 species of Hesperiidae and has presented specimens.

1934. *Generic Names of Holarctic Butterflies.*

1937. *Hübner*: detailed account of Hübner's publications, fixing the dates of publication of all new names.

Herrich-Schäffer, G. A. W.

1869–70. *Corr. Blatt. Zool.-Min. Verein Regensburg*, Prodromus Syst. Lep.: 6 new species of Oriental Hesperiidae. As he gave very brief descriptions and specified no localities, the identification of his species has proved very difficult.

1869. *Ent. Zeit. Stettin*: described and figured 4 Australian Hesperiids.

Hewitson, W. C.

1867–8. *Descriptions of* 100 *new species Hesperiidae*: elsewhere he described 76 others.

1867–76. *Illustrations of new species of Exotic Butterflies*, 2–5. Exact dates of issue are given by Griffin (1932, *Novit. Zool.* 37).

1879. His collection was received by bequest and contained most of his types; some others came to the B.M. with the Boisduval collection in the Oberthür collection.

Hoffmansegg, J. G.

1804. *Illiger's Mag. f. Insekt.* 3: reviewed Hübner's work and published 1 new specific name.

Höne, H. & Klapperich, J.

1939. Presented a portion of the large collections made by them in Chekiang, Yunan and E. Thibet. 15 new species obtained by them were described by Evans (1939, 1940).

Hübner, J.

1800–23. *Sammlung Europ. Schmett.*: 10 new species described and figured.

1819. *Verzeichniss bekannter Schmett.*: named 8 genera appertaining to the Hesperiidae dealt with in this volume. This work marks the commencement of the division of the family into genera.

1821. *Sammlung Exot. Schmett.*: figured a number of species, one of which was new.

1818–23. *Zuträge Exot. Schmett.*: 1 new genus and 2 species.
1823. *Syst. Alph. Verzeichniss*: named 1 new genus.

On Hübner's death his publications were continued by Geyer (q.v.). In 1935 Hübner's manuscripts were purchased by Mr. R. W. Lloyd who presented the pattern plates of the *Schmett. Europ.* to the B.M. and the remaining manuscripts to the Royal Entomological Society of London. From these manuscripts Hemming compiled the work entitled *Hübner* (see Hemming F.).

Joicey, J. J.

1915–21. In collaboration with A. Noakes, and later G. Talbot, described, and in a few cases figured, 2 new genera and 18 species obtained in New Guinea by A. E. & F. Pratt, and 5 new forms obtained in Hainan by T. Bowring.

1925. Presented his collection of Hesperiidae, containing collections made by Elwes, Swinhoe and Hamilton Druce.

1934. The bequest of his main collection, containing many Hesperiidae obtained after 1925, was received.

Kershaw, J. C.

1907. *Butterflies of Hong Kong*: figured all the species known to him and in a few cases added genitalia drawings.

Kirby, W. F.

1871. *Synonymic Catalogue of Diurnal Lepidoptera.* A work of the greatest value to taxonomists. An interleaved copy of the catalogue in the B.M. contains manuscript addenda of subsequently published names and was accurately maintained by F. A. Heron. From this work and the Zoological Record, a card catalogue has been prepared and is kept up to date.

Latreille, P. A.

1824. *Enc. Meth. Hist. Nat.* 9: classified and described all the species then known to him, naming 6 new species from Europe, Asia and Australia. A few of his types have come to the B.M. with the Oberthür collection.

Lederer, J.

1853–64. Various Austrian journals: described 1 genus and 5 species from Europe and W. Asia.

Leech, J. H.

1890–93. *Entomologist* and
1894. *Butterflies of China, Japan and Korea*: described and figured 1 new genus and 34 species, as well as figuring many previously described species.
1901. His large Palaearctic collection, containing all his types and material collected by himself and A. E. Pratt in China and Japan received by bequest.

Lindsey, A. W.

1925. *Annals Ent. Soc. America*, Types of Hesperioid genera: a very useful publication.

Linnaeus, C.

1758. *Syst. Nat.*, 10th edition: 3 species.
1763. *Amoen. Acad.* 6.: 1 new species.
1764. *Mus. Ludovicae Ulricae Reginae.*
1767. *Syst. Nat.*, 12th edition: 2 new species.

The types of 4 of the 6 species are with the Linnean Society of London and have been examined.

Lower, O. B.

1907–11. *Trans. Royal Soc. S. Australia*: described 1 genus and 16 species from Australia. His collection, with his types, is in the Adelaide Museum.

Ludlow F. & Sherriff, G.

Travellers in S.E. Thibet, from whom, in 1937 and subsequently, much valuable material has been obtained.

Mabille, P.

1875–1919. A number of papers in French and Belgian journals in which he described 7 genera and 137 species. His work consisted for the most part of isolated descriptions; the only major systematic works were:
1904–5. *Genera Insectorum*, fascicule 17, Hesperiidae: A carelessly prepared work, with unsatisfactory keys and many omissions, even of names published by himself.
1908. *Hesperiidae* in Seitz, *Macrolepidoptera of the World*, 1.
1908–19. In collaboration with E. Boullet, several papers in French journals, describing 1 new genus and 9 species.

Mackwood, F. M.

A well-known Ceylon collector, who presented material to the B.M. at various times. His collection was bequeathed in 1931 to the Colombo Museum.

Malaise, R.

1939. Presented valuable material obtained by him on the Upper Burma–Yunnan border.

Martin, L.

1895. Published descriptions of 2 new species from N.E. Sumatra. Material collected by him came to the B.M. with the Rothschild collection.

Matsumura, S.

1906–32. Descriptions of 1 new genus and 29 species from Japan, Korea and Formosa. His more important publications are:
1919. *Thousand Insects of Japan.* Illustrated.
1931. 6000 *Illustrations of the Insects of the Japanese Empire.*

Ménétriés, E.

1857. *Cat. Mus. Petr.* and
1859. *Bull. Acad. Petr.*: named 2 Chinese species.

Meyrick, E.

1885–1901. Described 2 genera and 7 species from Australia in various journals between 1885 and 1901.
1902. *Trans. Royal Soc. S. Australia* 26, in collaboration with O. Lower: a revision of the Australian Hesperiidae, describing 10 new species.

Miskin, W. H.

1889. *Proc. R. Soc. Queensland*, and
1891. *Ann. Queensland Mus.*: 12 new species from Australia.
1890. *Ann. Rep. Brit. N. Guinea*: a new species from S.E. New Guinea.

Moore, F.

1857. Horsfield & Moore, *Cat. Lep. Ins. Mus. E. I. C.*: published 55 new names for species, without descriptions. Of these, 4 are valid because recognisable figures of the larvae were published, and one because it was created in substitution of a name wrongly applied on one of Hübner's plates. 43 were subsequently described by himself or others; 8 remain nomina nuda. His other publications included:

1881. *Lepidoptera of Ceylon*: numerous coloured plates. 18 new genera and 12 species named.

1865–84. Various journals: 10 new genera and 108 species from Asia described.

1908. Moore's collection acquired by purchase.

Nicéville, L. de

1881–1902. *Journal of the Bombay Natural History Society* and of the *Asiatic Society of Bengal* and elsewhere: de Nicéville described 24 genera and 88 species from Asia. His descriptions were most complete and always supplemented by good coloured figures.

1895. *J. Asiatic Soc. Bengal*, in collaboration with L. Martin: The butterflies of N.E. Sumatra.

1898. *J. Bombay Nat. Hist. Soc.*, in collaboration with P. Mackinnon: The butterflies of Mussoorie, with figures of the early stages.

1898. l.c., in collaboration with H. Kühn: The butterflies of the Kei Is.

1899. l.c., in collaboration with N. Manders: The butterflies of Ceylon.

1900. His collection purchased by the Indian Museum, Calcutta.

Nurse, C. G.

1919. His collection of material from Cutch and Aden received by bequest.

Oberthür, C.

1876–96. *Études Ent.*, and

1907–22. *Études Lep. Comparée*: described 2 genera and 63 species and forms from N. Africa, Europe and China. In addition to publishing coloured figures of all his own species, he figured all the known European Hesperiidae and published descriptions of the early stages of several Hesperiids from N. Africa and France.

1931. His entire collection of Hesperiidae from all parts of the world (except certain N. American material) purchased by the B.M. It included all his own types as well as many important collections, such as those of Boisduval (with several types), Mabille (with many types), Rambur (with all types), Guenée, Graslin, David and Dejean from W. China, Waterstradt from Java, Borneo, etc., Doherty from the Indo–Australian region, and H. Powell from N. Africa.

Ochsenheimer, F.

1808. *Schmett. Europa,* 1: one new species from Europe.

Ormiston, W.

1918–19. *Spolia Zeylanica*: Notes on Ceylon Butterflies.
1924. *Butterflies of Ceylon*: some figures of genitalia.
1920, and subsequently, presented many specimens to the B.M. His collection was finally presented to the Bombay Natural History Society.

Pallas, R. S.

1771. *Reise Prov. Russ. Reichs* 1: described 2 new species from Europe.

Peile, H. D.

1921. *J. Bombay Nat. Hist. Soc.* Published an account of the butterflies of Irak and presented his collection to the B.M.

Plötz, C.

1879–86. *Stett. Ent. Zeit.* and other German journals: published complete keys to all genera and species of Hesperiidae known to him and described 109 species from Europe and the Indo–Australian Region. He made coloured figures of all the species known to him, which were never published but are preserved in the Zoological Museum, Berlin. Copies of many of the figures are in the B.M. and many of them have been reproduced in Seitz's *Macrolepidoptera of the World.*

Poda, N.

1761. *Insecta Musei Graecensis*: 2 new species.

Pryer, W. B.

1889. *Rhop. Nihonica*: all the species known from Japan described and figured.

Querci, O.

A notable collector in Italy, Greece and Spain. Much of his material is in the B.M.

Rambur, J. F.

1832. *Ann. Ent. Soc. France*: a new species from Corsica.

1842. *Faun. Ent. Andalusia*: one new genus and 6 species, with a coloured plate and genitalia figures, which appeared several years before the letterpress. He was the pioneer of genitalia diagrams of Hesperiids, and, though his figures are small, they are more lucid than many of the photographic and camera-lucida reproductions that have appeared since.

1858. *Cat. Lep. Andalusia*: one new genus.

His collection, including his types, came to the B.M. with the Oberthür collection.

Reverdin, J. L.

1910–29. *Bull. Soc. Lep. Genève*: a number of papers on Palaearctic Hesperiidae, with long descriptions, coloured figures and photographs of genitalia, naming 22 new species.

1916. *Études Lep. Comparée*: photographs of the male genitalia of all the Palaearctic species of the genera *Pyrgus*, *Spialia* and *Muschampia*.

1927. *Horae Macrolep.* 1: 2 new species from N. Asia.

Ribbe, C.

1886–1900. *Iris*: several papers on Lepidoptera from the Moluccas, New Guinea and the Bismarck islands, describing 5 new species and figuring some of them as well as some other previously described species.

Riley, N. D.

1921. *J. Nat. Hist. Soc. Siam*, and

1921. *Entomologist*, in collaboration with E. J. Godfrey: 3 new species from Siam.

1923. *Entomologist*: 1 new genus and 2 species from Borneo, obtained by G. F. C. Woollett, who presented material from Borneo.

1926. *Trans. Ent. Soc. London*: on the identity of certain Hesperiidae described by Latreille.

Rothschild, W.

1903–15. *Novit. Zool.*: 12 new species from Ceram, New Guinea and the neighbouring islands, obtained by A. S. Meek.

1915. *Report Brit. Ornithological and Wollaston Expeditions to Dutch New Guinea* 2–15: 22 new species obtained by C. Boden Kloss.

1939. His great collection received by the B.M. as a bequest. It contains his own types, the Felder collection with many types, collections made by O. Müller in Sikkim (with some of De Nicéville's types) by F. Hannyngton in Coorg, S. India, A. S. Meek in New Guinea, etc., the Kelly-Roosevelt expedition to Szechwan, and many others.

Rottemburg, S. A. von

1775. *Naturforscher* 6: 1 new European species.

Schrank, F. von F.

1801–2. *Fauna Boica*: 1 new genus.

Scopoli, J. A.

1763. *Ent. Carniolica*: 1 new European species.

Scudder, S. H.

1872. *Fourth Ann. Rep. Peabody Acad. Sci.*: a new genus and species (*Potanthus californica*) from N. America, which was subsequently found to have come from the Oriental Region (see Evans 1935, *Stylops* 4: 100).

1875. *Proc. American Acad. Arts and Science.* Historical sketch of generic names of Butterflies: fixed the types of all genera known to him.

Seitz, A.

General editor of *Macrolepidoptera of the World.* The volumes concerned are:

1909, 1, Palaearctic Hesperiidae under the authorship of P. Mabille: all species figured;

1927, 9, Indo–Australian under the authorship of A. Seitz: all species figured and 2 new species named;

1931, 1, Supplement, under the authorship of H. Gaede.

Semper, G.

1879. *Journ. Mus. Godeffroy* 14 (repeated in *Stett. Ent. Zeit.* 44): 2 new species from Australia.

1892. *Schmett. Philippinen Inseln*: 9 species, figuring most of them as well as other Hesperiids.

Sheldon, W. G.

Collected in many European countries. A selection from his collection was received by bequest in 1942 and included especially material from Scandinavia and Sarepta in S. Russia.

Shepard, H. H.

1931–9. *Lepidopterorum Catalogus*, pts. 47, 64, 69, 74, *Hesperiidae*: contains references to all published names and is a most useful publication. Publication was interrupted by the World War of 1939 and it is hoped that steps will be taken to complete it.

Snellen, P. C. T.

1878. *Tijd. Ent.* Butterflies of Celebes: 1 new species described.
1892. *Mid-Sumatran Butterflies*: 2 new species described.
1910. *Rhopalocera of Java*, Hesperiidae, in collaboration with M. C. Piepers and H. Fruhstorfer: coloured figures of many species and of the early stages.

Sonan, J.

1930–6. *Zephyrus and Trans. Nat. Hist. Soc. Formosa*: 8 new species from Japan and Formosa, mostly figured.

Speyer, A. J.

1879. *Stettin Ent. Zeit.*: 3 Palaearctic species described.

Staudinger, O.

1861 & 1886. *Stettin. Ent. Zeit.* and
1887 & 1892. *Romanoff Mem.*: described 8 Palaearctic species.
1888. *Exotische Schmett.* 1, in collaboration with E. Schatz: 2 Oriental species described and several Hesperiidae figured.
1889. *Iris*, Butterflies of Palawan: 1 new genus and 26 species or subspecies described, a few of them figured.

His collection is in the Zoological Museum, Berlin, and contains the types of many species described by P. Mabille, and by H. J. Elwes and J. Edwards.

Stoll, C.

1780–90. Continued Cramer's *Papillons Exotiques* from plate 319 of vol. 4 to the end, including the Supplement: published the names with figures of 4 new Oriental species.

Strand, E.

1910 & 1920. *Archiv Naturgeschichte*: described 2 species from the Oriental region, which had already been described, and a new genus and species from Delagoa Bay, which actually came from Australia.

Swinhoe, C.

1884–1919. 14 papers in the *Ann. Mag. Nat. Hist.*, *Proc. Zool. Soc.* and *Trans. Ent. Soc. London*: 5 new genera and 53 species of Oriental Hesperiidae described.

1908. *Trans. Ent. Soc. London.* On Indo–Malayan and African Hesperiidae described by C. Plötz: a number of his own species figured as well as copies of some of Plötz's manuscript figures; described 1 new genus.

1912–13. *Lepidoptera Indica*: all Indian species figured, and 9 new genera and 10 species described.

He sold all his types to the B.M. Part of his collection was purchased after his death and part came to the B.M. with the Joicey bequest.

Tepper, J. G. O.

1881. *Trans. R. Soc. S. Australia*, The Papilionidae of S. Australia: 6 new Hesperiidae described.

Tutt, J. W.

1906. *A Natural History of British Lepidoptera*, 8: 1 genus, 66 varieties of Palaearctic Hesperiidae described and named. His work contains an admirable detailed account of the family.

Tytler, H. C.

1915. *Bombay Nat. Hist. Soc.*: an account of the butterflies of Manipur and the Naga Hills: 4 new species, 2 of which were figured in the same journal in 1926, described.

He presented a number of specimens, and his Hesperiid collection was purchased after his death in 1939.

Van der Poll

See Adams, H. J.

Verity, R.

1909–38. Many papers in several journals dealing with the variation of Palaearctic butterflies: 99 new names were assigned to the Hesperiidae, applicable for the most part to varieties and generations; 1 new Oriental species (*thracimima*) described from Hong Kong.

1940. *La Farfalle Diurne d'Italia*, 1. Superfamily Hesperides: a truly superb work, dealing fully with the Italian Hesperiids; coloured figures are given of all the principal varieties and photographs of the genitalia; new names are assigned to 1 genus and to 19 varieties.

Walker, F.

1870. *Entomologist*: one new genus and 4 species from Egypt described.

Walker, J. J.

A naval officer, who visited many out-of-the-way islands in the South seas and elsewhere and presented a great deal of important material to the B.M.

Warren, B. C. S.

1926. *Trans. Ent. Soc., London.* A Monograph on the tribe Hesperiidi (European species): an important work dealing in detail with the variation of the several species, accompanied by numerous figures of the imagines and photographs of the genitalia. In this and several articles in various journals Warren named 6 new genera and 40 new species and subordinate forms, several of the names, e.g. *extensa*, *fasciata*, *reducta*, being repeated for several species. His collection, by deed of gift, belongs to the Trustees of the British Museum.

Waterhouse, G. A.

1897–1937. Many papers, mostly in Australian journals, on the butterflies of Australia. His principal works are:

1914. *Butterflies of Australia*: a very complete work with figures, mostly uncoloured, of all the known species, written in collaboration with G. Lyell.

1932. *What butterfly is that?*: a handbook of a more popular type, with coloured figures of all the known Australian species.

Waterhouse gave new names to 6 genera and 46 species and subspecies of Hesperiidae, all Australian, except for 1 genus from New Guinea and 1 species from the S. Pacific islands. In collaboration with Lyell he described 6 genera and 4 species.

1932. Presented a considerable material to the B.M. and afforded the writer of this book every assistance in studying the Australian Hesperiidae in the field and in the Australian museums.

Watson, E. Y.

1891. *Hesperiidae Indicae*: consists of reprints of original descriptions; a most useful book for collectors in India.

1893. *Proc. Zool. Soc., London*, a proposed classification of the Hesperiidae with a revision of the genera: 4 new genera and 7 species from the Oriental region and Australia described.
1895. *J. Bombay Nat. Hist. Soc.*, Key to the Asiatic Genera of Hesperiidae: 1 new name for a genus.
1897. l.c., On the butterflies of the Chin Hills: 2 new species.
1897. Collection presented to the B.M.

Watson's classification has stood the test of time and, considering the material then available, was a wonderful piece of work. His death in action in the Tirah campaign of 1897–8 was a serious loss to science.

Westwood, J. O.

1852. *Genera of Diurnal Lepidoptera*, 2: a useful work at the time, but now obsolete.

Wileman, A. E.

1929. Wileman's useful collection from Japan and Formosa received by bequest.

Woodhouse, L. G. O. & Henry, G. M. R.

1942. *The Butterfly Fauna of Ceylon*: coloured figures of all species and uncoloured of the early stages.

Wood-Mason, J. & De Nicéville, L.

1881 & 1882. *J. Asiatic Soc. Bengal*, Lepidoptera of the Andaman and Nicobar Islands: 5 new species described.
1887. l.c., Lepidoptera of Cachar, N.E. India: 1 new genus and 6 new species described, with uncoloured figures.

APPENDIX B

LIST OF NAMES PUBLISHED FOR SPECIES ETC., WHICH HAVE BEEN FOUND NOT TO OCCUR WITHIN THE REGION DEALT WITH OR WHICH REMAIN UNDETERMINED

aepitus Geyer 1832: "Java": recte America: species in genus *Artines* Godman.

aesopus Plötz 1882: "Java": recte America, is *Telemiades penidas* Hewitson.

anatolica Plötz 1883: "Asia Minor": recte America, a species in the genus *Phemiades.*

antalcidas C. & R. Felder 1867: ♂ "Celebes": figured. Is *Fulda coroller* Boisduval 1833, confined to Madagascar.

argenteola Matsumura 1940: "Formosa": recte America, is *Epargyreus tityrus* Cramer.

argina Plötz 1884: "Brisbane": recte America, is *Amblyscirtes samoset* Scudder.

bifasciata Tepper 1888: "S. Australia": undetermined: the description and figure apply to no known insect.

fenestratus Gmelin 1790: "Extra-European": Kirby 1869 (Tr Ent Soc London 5: 362) states that the type was in the Dublin Museum, but was so broken, that there was little chance of identification. The type is no longer in existence, Gmelin's description accords with *Telemiades acutipennis* Mabille & Boullet 1912, described from French Guiana.

indica Mabille 1891: "India": recte Africa, is *Gegenes niso* Linnaeus (=*letterstedti* Wallengren).

lagon Mabille 1891: "Cooktown": undetermined, but thought to refer to a species in the American genus *Atrytone.*

oileus Linnaeus 1767: "Algeria": recte America, a species in the genus *Pyrgus* (*Pyrgus syrichtus* Fabricius 1775).

ozias Hewitson 1878: "Java": recte America, a species in the genus *Lychnucoides.*

phellus Mabille 1883: "Malaya": recte America, is *Vinius exilis* Plötz.

philaenus Mabille 1883: "Malaya": recte America, is *Vinius letis* Plötz.

plana Swinhoe 1915: ♂ "New Guinea": type B.M., recte Africa, is *Borbo lugens* Hopffer.

saxula Mabille 1896: ♀ "Cooktown": recte America, is *Halotus angellus* Plötz. ♂ described by Swinhoe 1905 is *Toxidia thyrrhus* Mabille.

sigida Mabille 1891: "Australia": type B.M.: recte America, is *Polites verna* Edwards.

suborbicularis Mabille 1904: Australia: undetermined and thought to refer to a species in the American genus *Dalla.*

tartarus Hübner 1805: "Europe": recte America, is *Pyrgus oileus* Linnaeus.

Moore 1857 (Horsfield & Moore Cat Lep East Indian Company Museum: vol. 1) published a number of new names without descriptions. The majority have since been validated subsequently by himself or other authors, but the following remain in the "Nomen Nudum" category: *amerta: chandrasa: daha: dasa: madhava: sinta: tapana.*

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*brevicornis. G 12/24.
*bromus. M 7/7.
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*buina. A 3/10.
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*caudata. A 5/1.
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*chimdroa. M 7/4.
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corippus. B 2/9.
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*cyanea. L 14/11.
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*cynthia. C 12/10.
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*doesoena. J 20/3.
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*elena. L 6/4.
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*elsa. L 7/3.
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*flora. B 3/2.
*floresia. L 6/1.
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*funebris. A 3/6.
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*furcata. A 5/6.
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fuscicornis. J 10/21.
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*ganda. L 3/22.
*ganga. M 2/2.
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Gegenes. M 1.
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*germana. L 6/5.
germanus. B 4/4.
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*tali. G 6/7. G 9/1.
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*thandaungra. G 11/12.
thaumas. K 1/2.
thaumatana. K 1/2.
theba. I 6/4.
*theca. M 5/4.
thelma. L 1/4.
therapne. D 4/7.
therapnoides. D 4/7.
thibetana. K 3/7.
thibetanus. D 6/16. G 6/7.
thielei. E 9/1.
thomanni. D 6/4.
Thoressa. G 11.
thracimima. J 20/1.
thrax. J 14/2. M 4/3.
thridas. A 3/27.
thwaitesi. C 2.
thymbron. A 4/1.
Thymele. D 1.
Thymelicus. K 1.
thyone. M 3/3.
thyrrhus. E 9/2.
thyrsis. J 13/1.
Tiacellia. J 26.
tiacellia. J 26.
tibetana. B 6/20.
tibetanus. F 2/11.
*tilda. L 1/5.
tilia. G 12/17.
tillyardi. E 5/4.
Timoconia. E 9.
tindalii. C 12/1.
tissa. C 5/2.
tissara. L 1/7.
titus. C 12/1.
toba. C 12/6.
tochrana. K 3/1.
tokachiana. D 6/16.
tola. B 5.
tolo. A 1/3.
tonka. B 4/1.
tonkiniana. C 7/3.
tonkinianus. G 1.
toona. M 5/7.
toradja. J 14/4.
*torsa. L 7/6.
torus. J 14/1.
Tothrix. A 1.
Toxidia. E 9.
toxopea. G 12/20.
*trachala. L 5/7.
tranga. J 19/1.
*tranquilla. L 6/6.
translucida. B 3/6.
transversa. D 1/2.
Trapezites. E 3.
traviata. J 11/1.
trebellius. C 12/11.
trebivicensis. D 6/4.
trichoneura. C 13/1.
trichoneuroides. C 13/1.
trichopepla. L 8/2.
trifenestrata. B 2/4.

trimacula. G 5/4.
trimaculata. E 14/1.
trimaculatus. E 8.
triplex. J 2/1.
tripolina. D 3/1.
tripura. J 3/3.
trishna. L 4/4.
triton. B 2/11.
trobrianda. D 6/8.
tropica. L 5/25.
tubulus. C 12/8.
tuckeri. A 1/2.
tugela. L 8/3.
tulsi. M 7/12.
turica. L 1/8.
tutti. D 6/1.
Tuttia. D 5.
tymbophora. E 12/2.
tympanifera. J 4.
tyrius. A 3/17.
tytleri. B 6/9. G 12/6. J 1/1. L 5/7.

Udaspes. I 7.
udraka. L 2/4.
ulama. L 8/3.
ultra. C 12/8.
ulunda. I 3.
uma. G 13/3.
umbrina. A 3/9.
umbrosa. J 9/8.
unica. A 3/23.
unicolor. D 1/2. F 1. I 1/3. M 6/4.
uniformis. A 1/16. E 9/10.
unipuncta. I 6/6.
Unkana. J 19.
*upadhana. L 5/4
upositha. C 5/2.
uraka. H 2/2.
uralensis. D 6/1.
urejus. M 3/2.
ursula. M 1/1.
utanus. C 12/1.

vaga. L 2/3.
vaicravana. A 1/16.
vaijrada. B 6/31.
vaika. M 3/3.
vairacana. A 3/14.
vaja. L 7/3.
vajra. A 1/13.
vajuna. C 12/8.
valenia. J 10/11.
valentini. C 7/1.
valesiaca. D 6/11.
valesina. D 6/11.
vallio. E 9/6.
varia. G 11/10.
varians. I 6/3.
variegata. D 1/2.
vasava. C 16/1.
*vasna. L 12/9.
vasuba. I 1/1. I 5/1.
vasundhara. A 1/4.
vasutana. A 1/9.
vedanga. L 7/13.
vega. L 7/3.
vella. C 12/11.
veluvana. G 12/24.
*velva. A 1/4.
venata. K 3/1.
venesta. A 3/25.
venula. K 1/2.
venusta. D 6/7.
vermiculata. J 10/1.
verona. I 2/1.
*verones. G 2/4.
verruca. J 4.
vespa. C 18/3.
vesta. L 2/1.
viburnia. J 10/16.
vilasina. G 12/1.
vimana. B 6/30.
vindhiana. G 2/2.
vinta. L 7/11.
violacea. A 3/18.
virescens. K 1/4.
virgata. G 5/2.
virgula. K 1/1.
viriati. D 6/11.
viridescens. D 3/3.
viridicans. A 2/1.
viridicincta. L 14/8.
viridis. B 1.
visana. C 11/5.
vistara. G 12/1.
vitrea. C 5/11. H 1.
vitruvius. B 6/16.
vitta. A 3/22.
vittatus. D 6/11. G 4.
vivapama. A 3/15.
vivax. K 3/6.
Vlasta. E 1.
volens. L 7/9.
volux. I 6/3.
vulcania. C 12/1.
vulpecula. C 1/1.
vulsina. J 9/2.
vulso. J 9/1.
vulturna. C 12/9.

waigensis. I 6/8.
waigeuensis. B 2/5. *L 14/3.
walkeri. L 2/2.
wama. L 12/7.
wambo. M 2/1.
wandammanensis. L 14/5
wanga. I 6/8.

*wantona. G 12/23.
warrenensis. D 6/4.
Warreno-hesperia. D 5.
waterstradti. C 12/7.
watsoni. F 2/9.
Watsonia. I 4.
Watsoniella. I 4.
watsonii. M 8/2.
websteri. L 8/3.
werneri. K 1/2.
weymeri. G 13/2.
wilemanni. L 5/9.
williamsi. D 5/6.
wissmanni. D 3/1.
wokana. I 6/7.
wollastoni. L 14/13.
woolletti. A 3/3. J 1/2.
wortha. A 3/2.

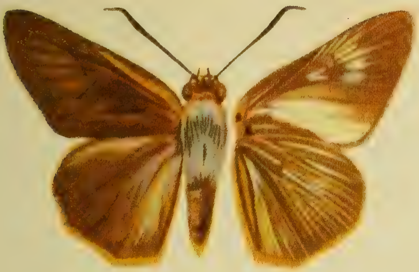
xanites. I 2/3.
xantho. I 6/4.
xanthomera. E 11/4.
*xanthopogon. A 5/4.
xarea. C 12/1.
xiphiphora. E 11/1.

yamanta. I 1/4.
yamashiroensis. C 11/1.
yamdena. C 12/1.
yanuca. M 7/7.
yanuna. A 3/17.
yapatha. C 12/5.
yashtivana. L 3/3
yasodara. J 13/1.
yatesi. M 7/2.
yaya. I 6/3.
yerburyi. C 18/3.
yojana. L 5/16.
yotissa. C 12/1.
yunnana. D 6/17.

zagrabiensis. D 6/1.
zalates. D 6/11.
zamba. G 12/2.
zamorensis. D 6/11.
Zampa. J 12.
zandra. G 12/15.
zara. L 7/3.
zatilla. L 5/7.
zawi. B 5.
Zea. J 19.
zea. B 6/26.
zebra. D 4/1. L 5/13
Zehala. A 1.
Zela. J 12.
zelleri. M 3/4.
zema. G 12/1.
*zenia. L 1/7.
zennara. B 3/7.
zenon. J 12/3.
zero. J 12/2.
zesta. B 4/1.
zetus. J 9/11.
zeus. J 12/1.
ziclea. L 1/7.
*zina. M 5/6.
zinda. G 12/2.
zinnia. G 11/14.
zinoides. M 5/6.
*zita. A 2/2.
Zographetus. J 5.
zola. G 12/2.
*zoma. A 3/8.
zona. D 6/16.
zonaras. A 1/15.
zulla. C 7/2.

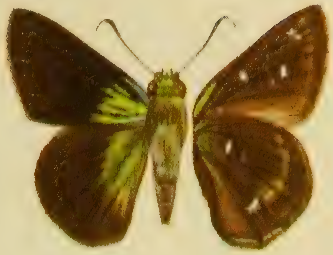
BRITISH MUSEUM NATURAL HISTORY
PRESENTED
20 DEC 1949

A.1. BURARA

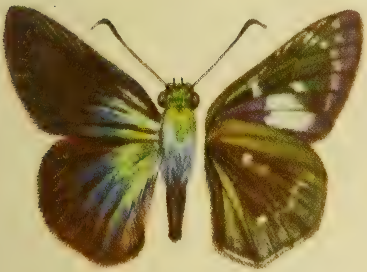


4. jaina velva. ♂

A.2. ALLORA

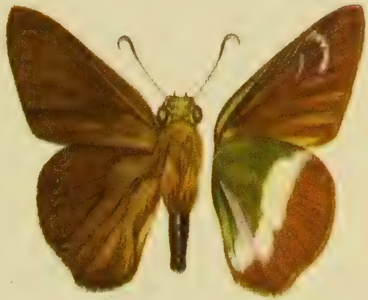


1. doleschallii albertisi. ♂

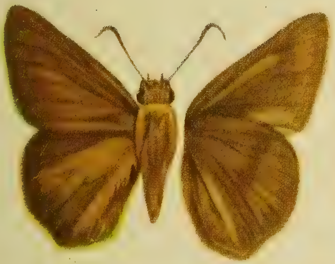


2. major zita. ♂

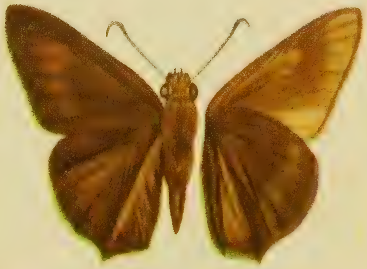
A.3. HASORA



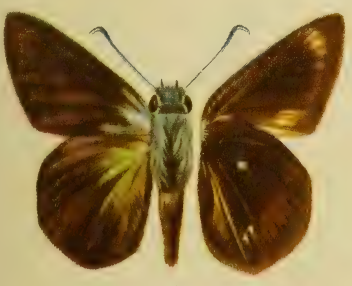
4. proxissima lavella. ♂



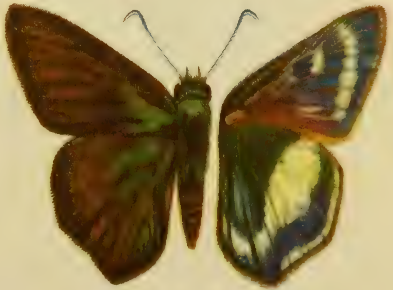
6. myra funebris. ♂



8. zoma. ♂



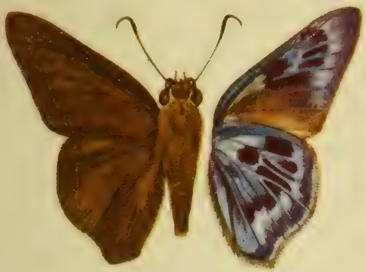
10. buina. ♂



11. discolor splendida. ♂

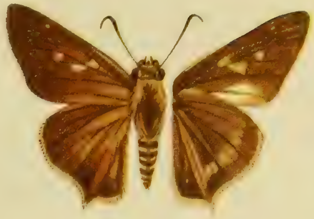
BRITISH MUSEUM NATURAL HISTORY

A.3. HASORA



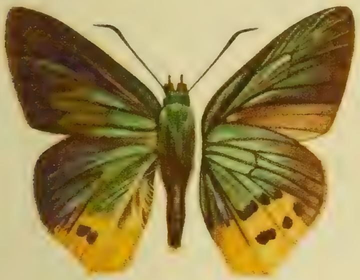
21. subcoelestis ♂

A.4. BADAMIA

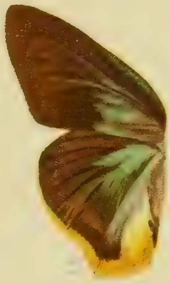


2. atrox. ♂

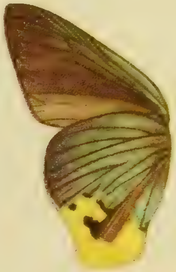
A.5. CHOASPES



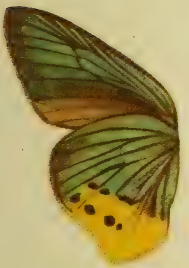
1. plateni. ♂



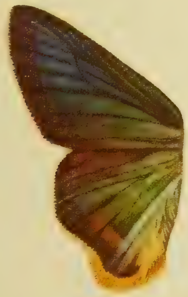
stigmata. ♂



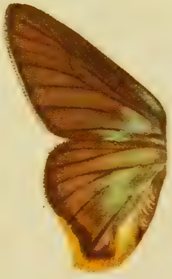
caudata. ♂



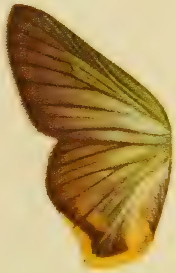
extensa. ♂



2. benjaminii. ♂

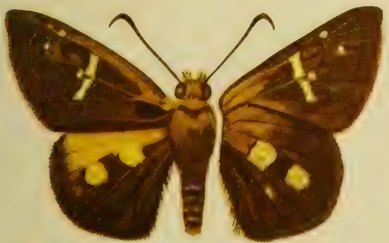


4. xanthopogon. ♂



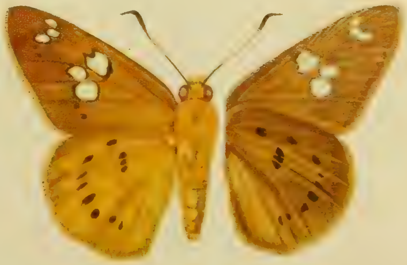
6. hemixanthus furcata. ♂

B.2. CHAETOCNEME



1. kumpiana. ♂

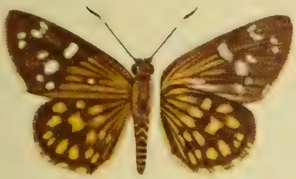
B.3. CAPILA



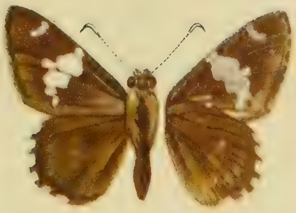
2. phanaeus flora. ♂

BRITISH MUSEUM
NATURAL HISTORY

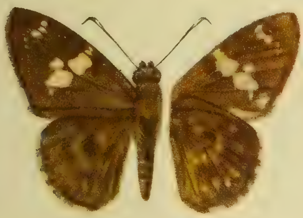
B.6. CELAENORRHINUS



4. oscula. ♂

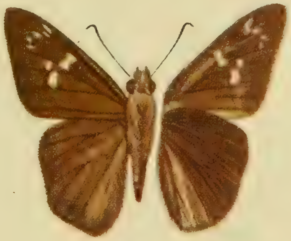


19. munda. ♂

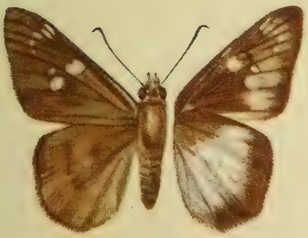


27. snelleni sema. ♂

C.1. NETROCORYNE

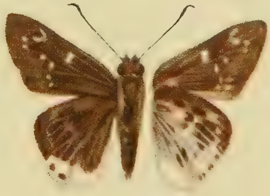


2. thaddeus. ♂



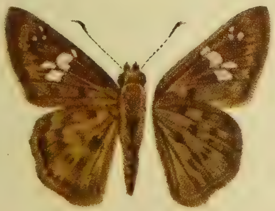
2. thaddeus. ♀

C.3. DARPA



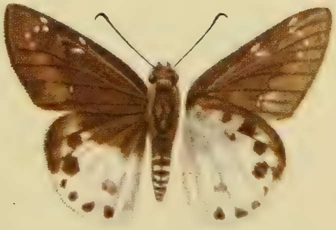
2. striata. ♂

C.5. COLADENIA

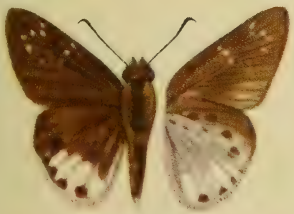


6. kehelatha. ♂

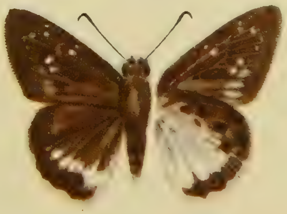
C.12. TAGIADES



10. cohaerens cynthia. ♂



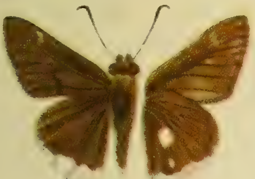
11. trebellius kina. ♂

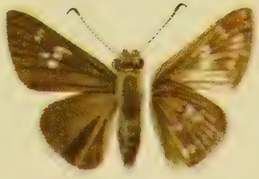


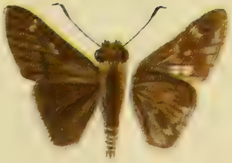
sheba. ♂

BRITISH MUSEUM NATURAL HISTORY

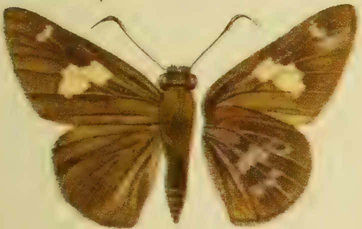
E.2. FELICENA

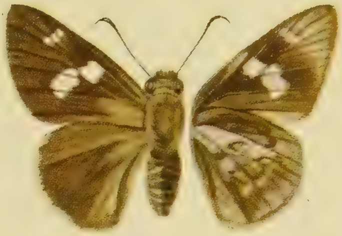

1. dirpha albicilla. ♂


albicilla. ♀

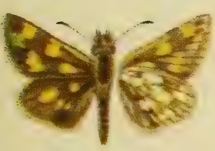

2. dora. ♂

E.8. HEWITSONIELLA

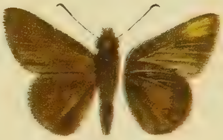

migonitis. ♂


migonitis. ♀

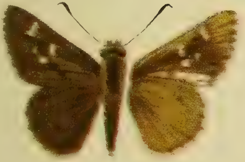
F.2. CARTEROCEPHALUS

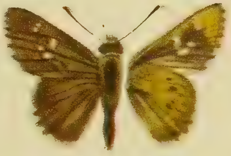

4. alcina. ♂

G.2. ARNETTA

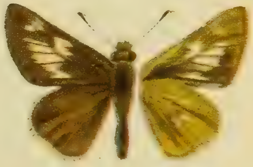

4. verones. ♂

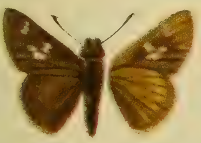
G.8. SOVIA

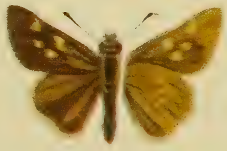

3. lucasii separata. ♂

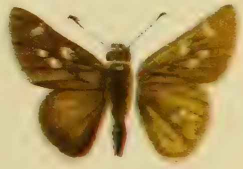

magna (Lo Tse Kiang). ♂

G.9. PEDESTA


1. masuriensis tali. ♂

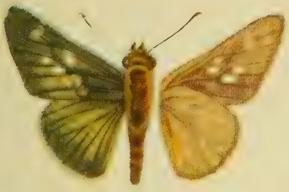

2. panda. ♂

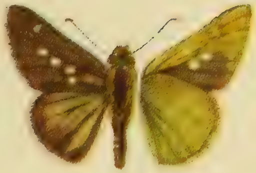

5. baileyi. ♂


6. serena. ♂

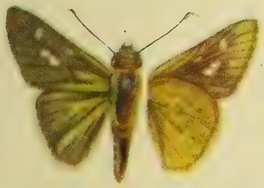
BRITISH MUSEUM
NATURAL HISTORY

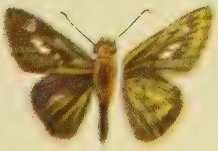
G.11. THORESSA

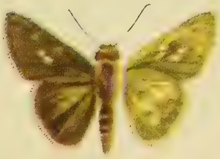

12. thandaunga. ♂

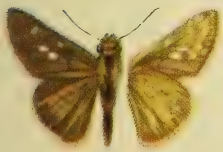

16. fusca senna. ♂

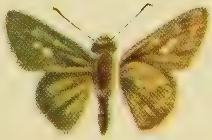
G.12. HALPE

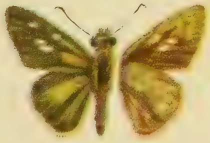

7. sikkima. ♂


19. flava. ♂

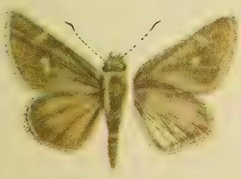

21. kusala. ♂


22. pelethronix pagaia. ♂

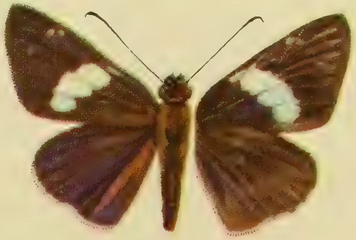

23. wantona. ♂


24. veluvana brevicornis. ♂

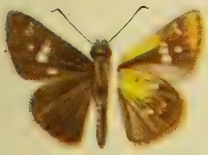
H.2. EOGENES


1. lesliei. ♂

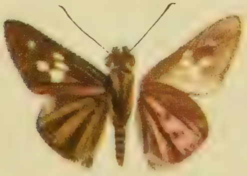
J.6. NOTOCRYPTA

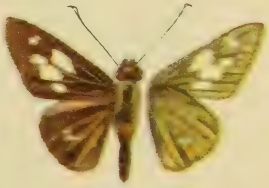

11. caerulea. ♂

J.1 SCOBURA


2. woolletti cephalina. ♂

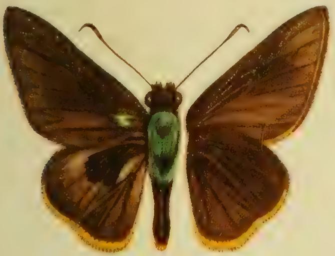
J.9. ISMA


2. obscura bicolor. ♂


6. dawna. ♂

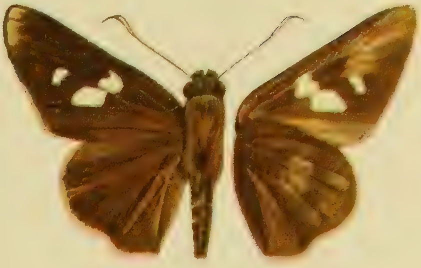
BRITISH MUSEUM NATURAL HISTORY

J.12 ZELA



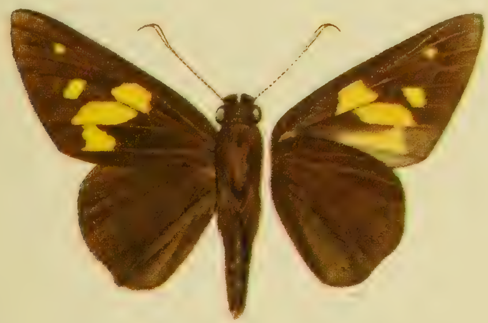
4. smaragdinus. ♂

J.14. ERIONOTA



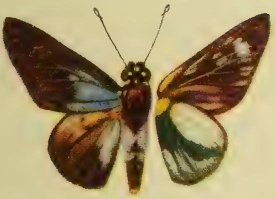
3. acroleuca sakita. ♂

J. 20. HIDARI

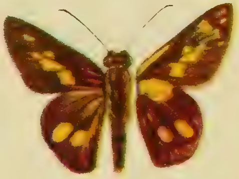


3. doesoena. ♂

J. 25. PRADA

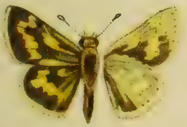


1. rothschildi. ♂

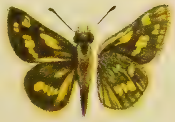


2. papua

L.1. TARACTROCERA

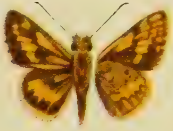


5. tilda. ♂



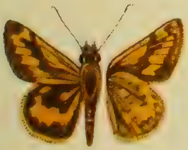
7. ziclea zenia. ♂

L.2. OCYBADISTES

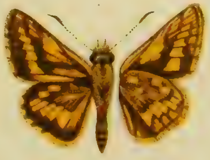


5. papua. ♂

L.3. SUNIANA

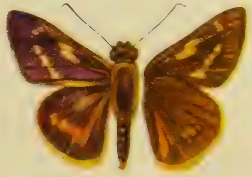


2. subfasciata



3. sunias nihana. ♂

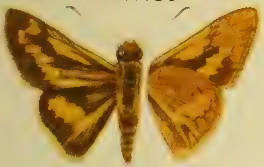
L.5. POTANTHUS

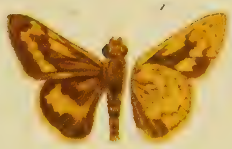


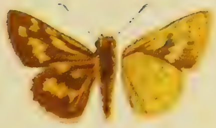
1. purpura. ♂

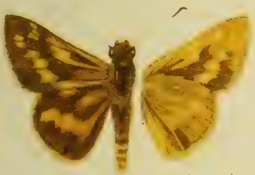
BRITISH MUSEUM NATURAL HISTORY

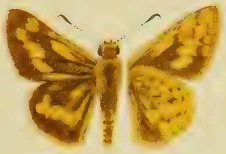
L.5. POTANTHUS

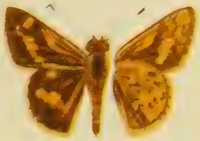

4. upadhana. ♂

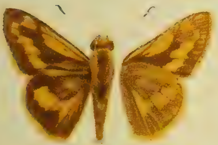

5. pamela. ♂

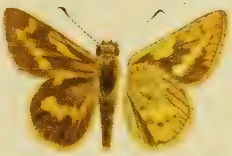

6. pallida. ♂

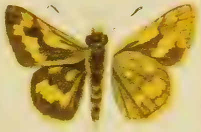

7. trachala. ♂

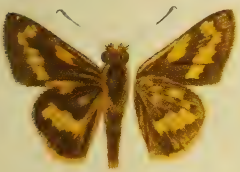

8. pseudomaesa clio. ♂

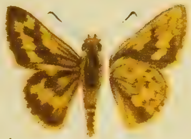

9. juno. ♂

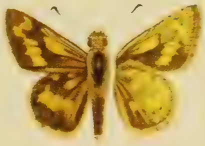

10. amor. ♂

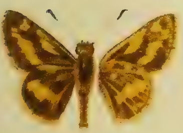

11. sita. ♂

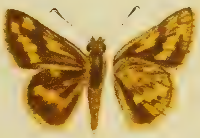

12. omaha maesina. ♂

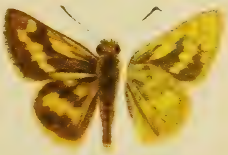

15. flava alcon. ♂

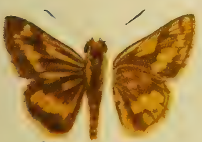

16. confucius diana. ♂

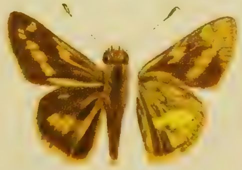

17. mara. ♂

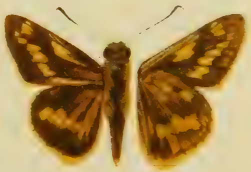

18. nesta. ♂


19. mingo ajax. ♂


21. lydia. ♂

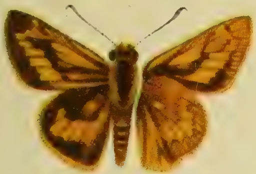

22. ganda. ♂

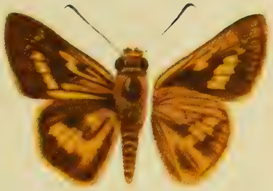

23. palnia. ♂

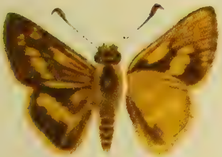

24. hetaerus serina. ♂

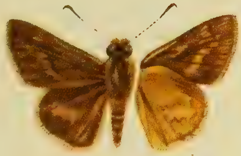
BRITISH MUSEUM
NATURAL HISTORY

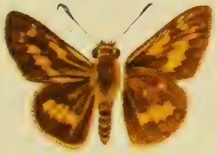
L. 6. ARRHENES


1. floresia.

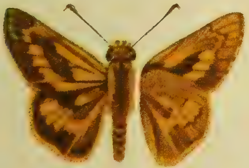

4. elena. ♂

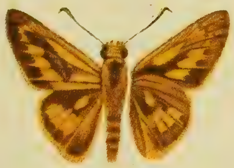

5. germana. ♂

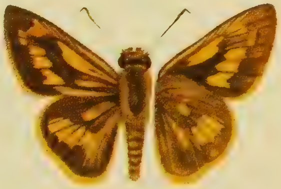

6. tranquilla. ♂

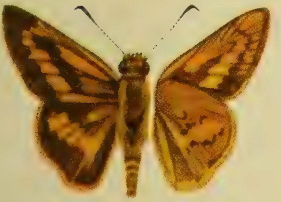

7. martha. ♂

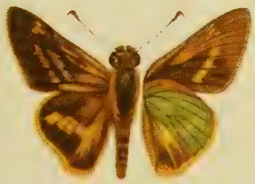
L.7. TELICOTA

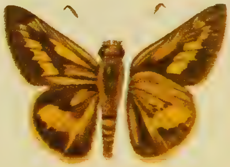

3. colon elsa. ♂


5. lettina. ♂

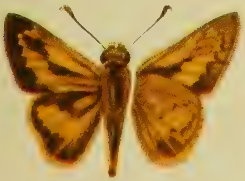

6. torsa. ♂

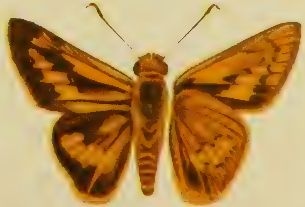

9. ancilla santa. ♂


12. aroa. ♂


21. paceka. ♂

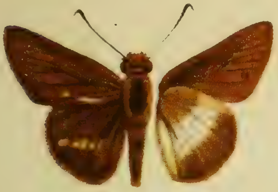
L.8. CEPHRENES


4. carna augusta. ♂

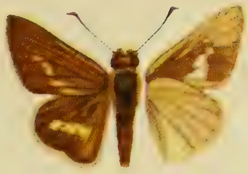

5. moseleyi. ♂

BRITISH MUSEUM NATURAL HISTORY

L.10. PASTRIA

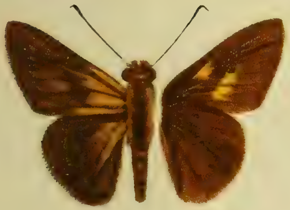


1. albimedia. ♂



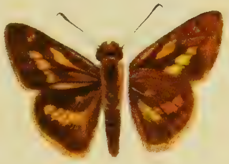
2. pastria. ♂

L.11. BANTA

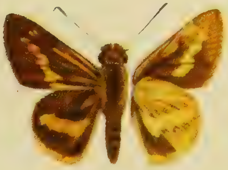


3. anna. ♂

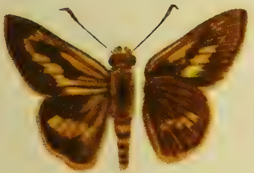
L.12. KOBRONA



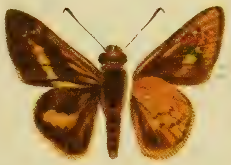
2. pansa



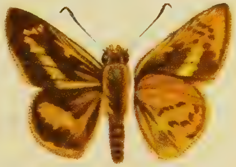
9. vasna



10.rasta. ♂

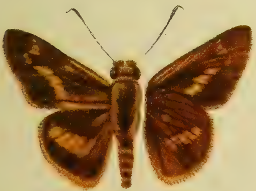


12. infralutea. ♂

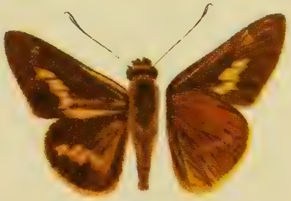


13. mirza. ♂

L.13. SABERA

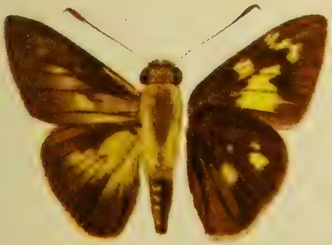


9. tabla. ♂

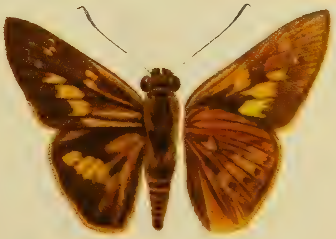


12. expansa. ♂

L. 14. MIMENE



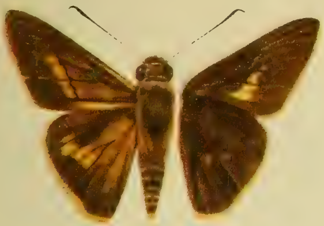
1. melie. ♂

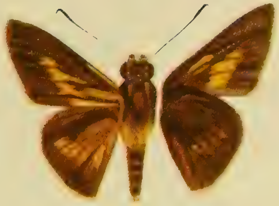


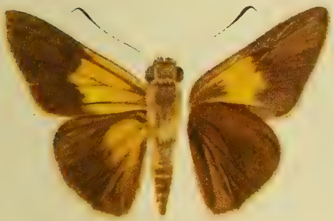
2. kolbei tenebricosa. ♂

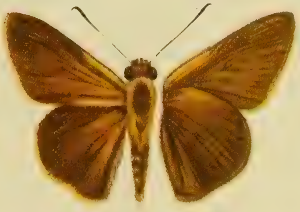
BRITISH MUSEUM
NATURAL HISTORY

L.14. MIMENE


3. waigeuensis. ♂


4. celia caesar. ♂


8. basalis. ♂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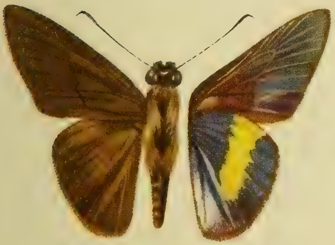
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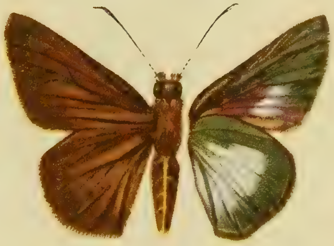
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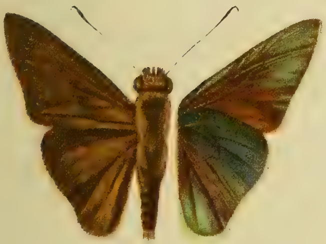
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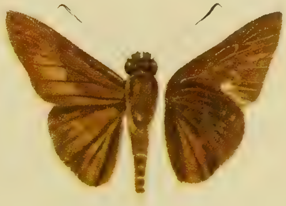
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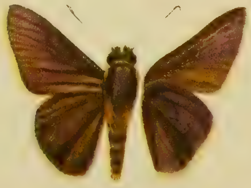
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BRITISH MUSEUM NATURAL HISTORY

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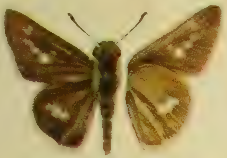

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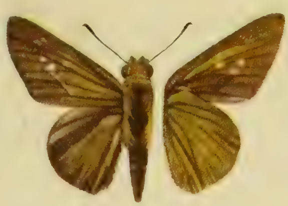

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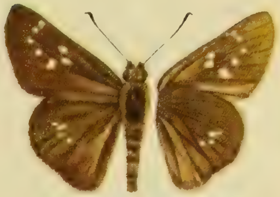

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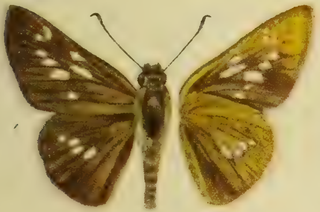

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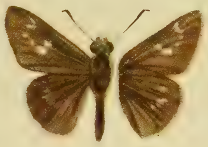

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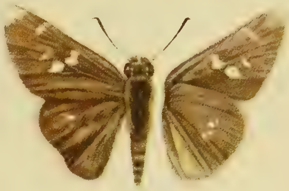

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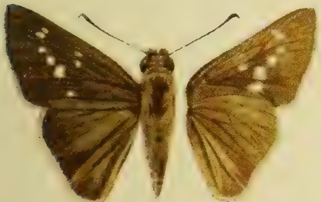

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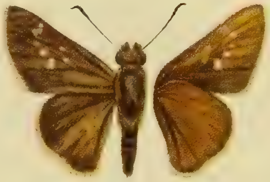

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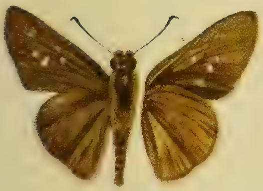

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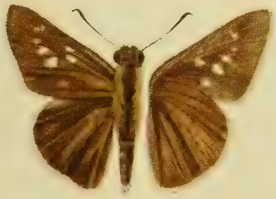

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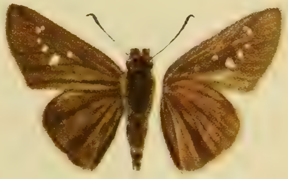

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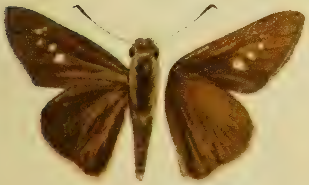

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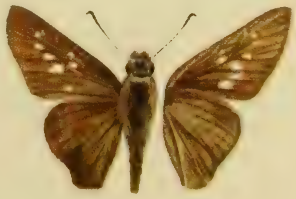
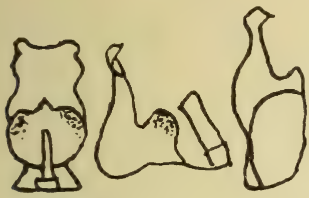


15. mehavagga. ♂

BRITISH MUSEUM
NATURAL HISTORY

A.1. BIBASIS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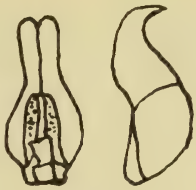
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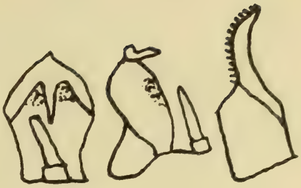
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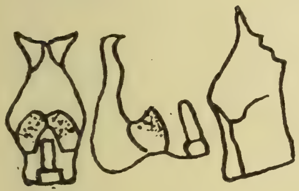
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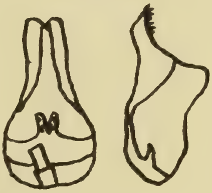
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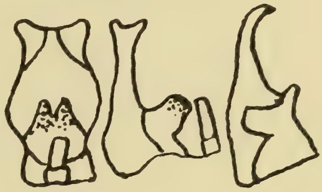
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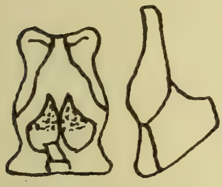
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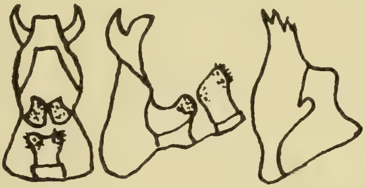
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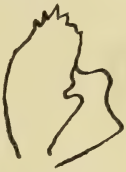
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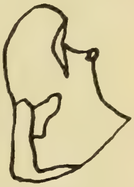
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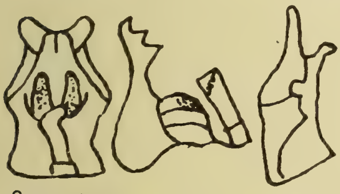
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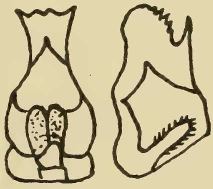
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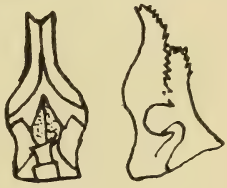
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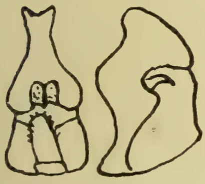
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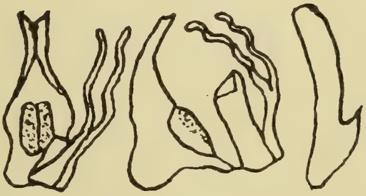
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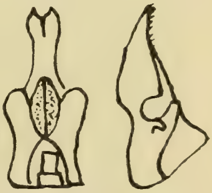
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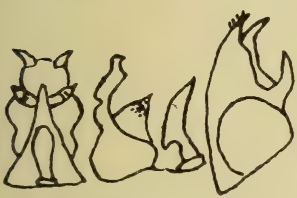
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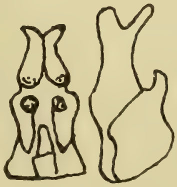
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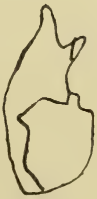
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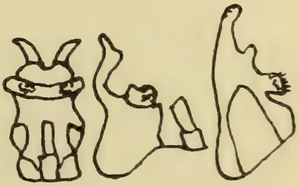
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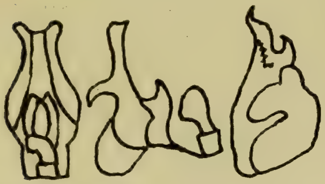
A.2. ALLORA

A.3. HASORA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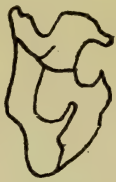
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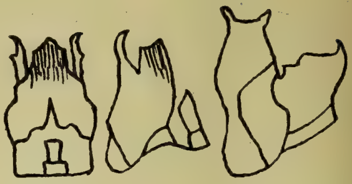
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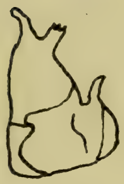
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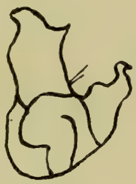
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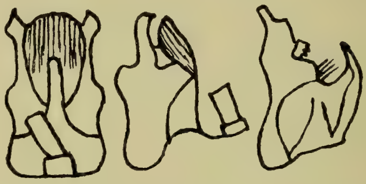
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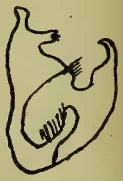
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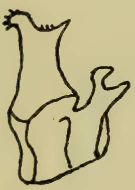
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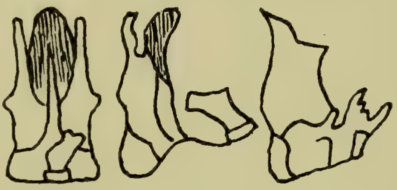
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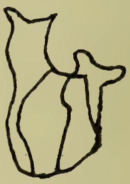
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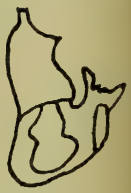
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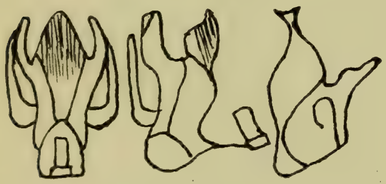
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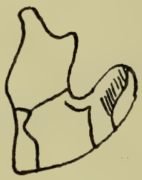
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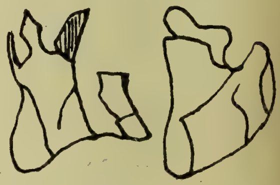
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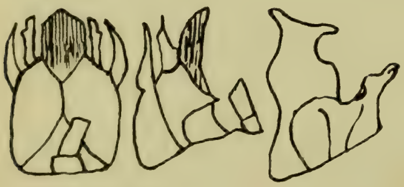
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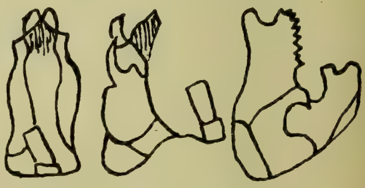
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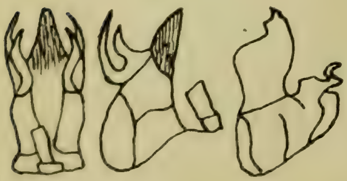
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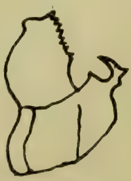
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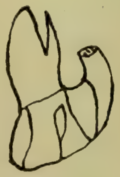
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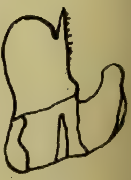
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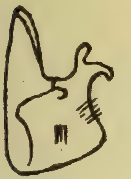
BRITISH MUSEUM NATU STORY

A.3. HASORA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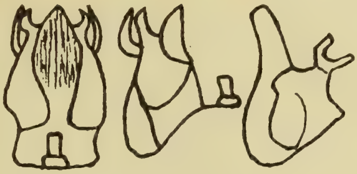
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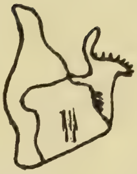
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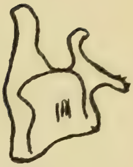
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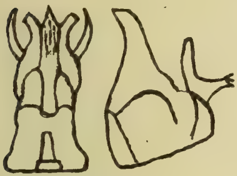
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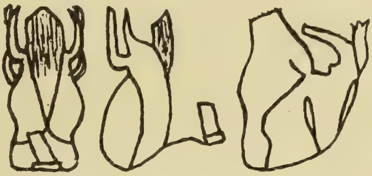
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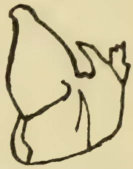
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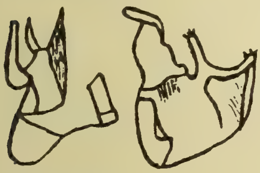
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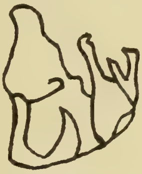
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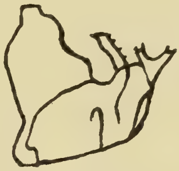
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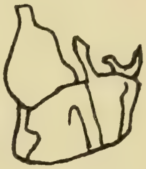
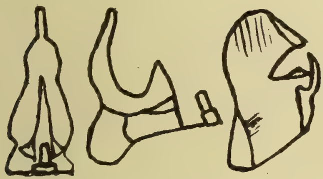

27. thridas

A.4. BADAMIA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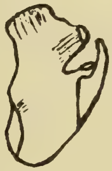
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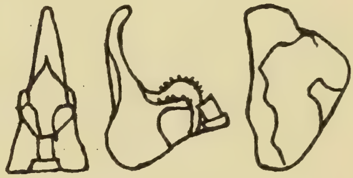
A.5. CHOASPES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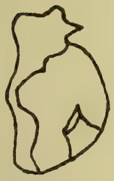
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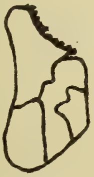
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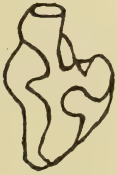
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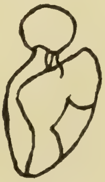
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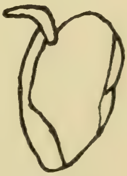
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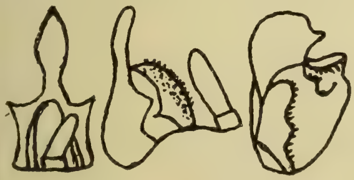
B.1. EUSCHEMON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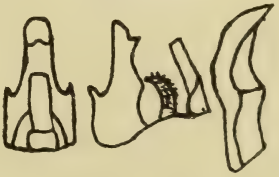
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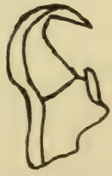
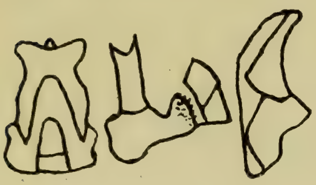

2. denitza

British Museum (N.H.)

B.2. CHAETOCNEME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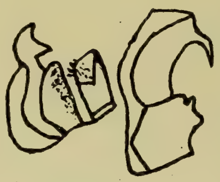
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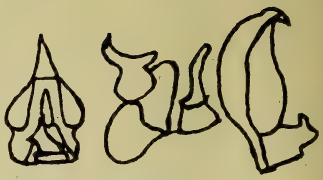
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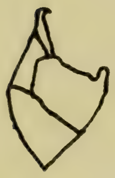
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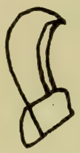
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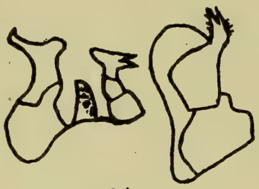
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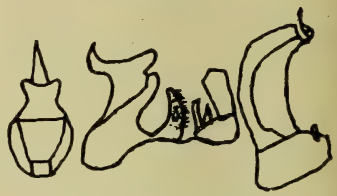
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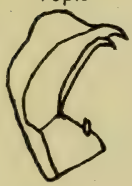
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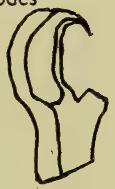
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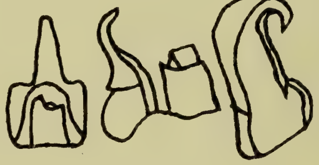
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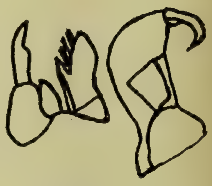
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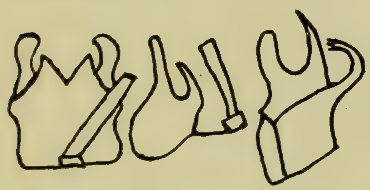
B.3. CAPILA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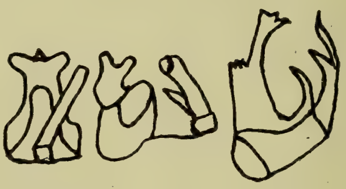
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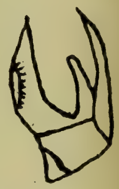
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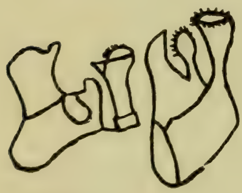
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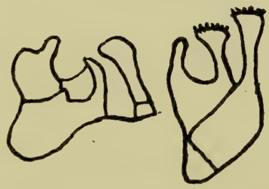
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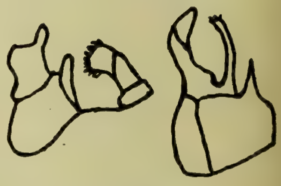
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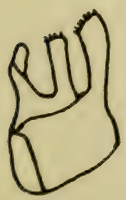
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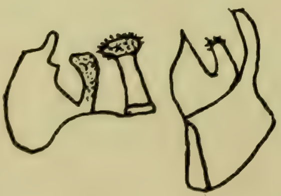
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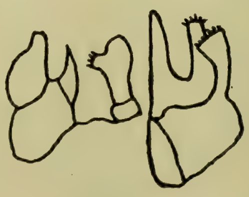
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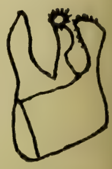
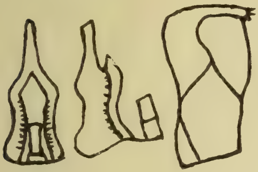

9. hainana

B.4. LOBOCLA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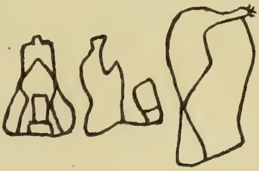
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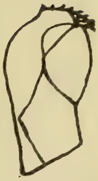
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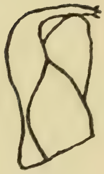
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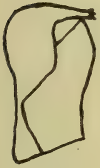
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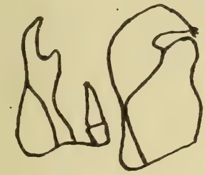
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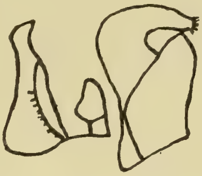
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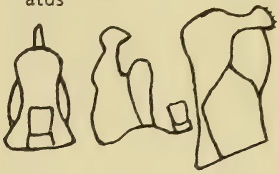
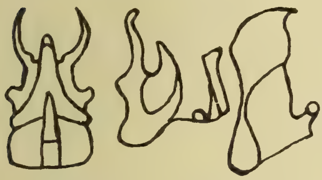

7. simplex

B.5. CHARMION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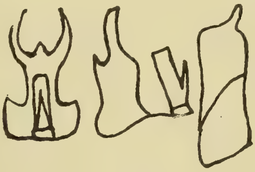
B.6. CELAENORRHINUS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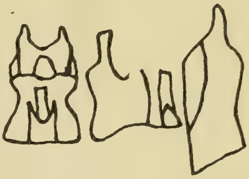
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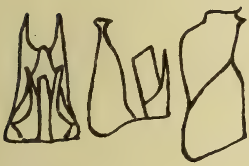
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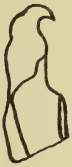
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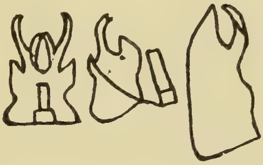
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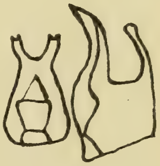
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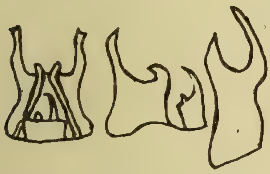
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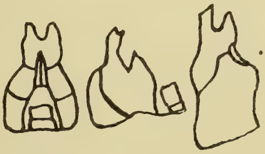
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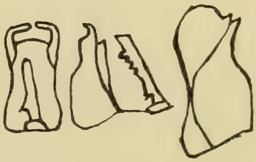
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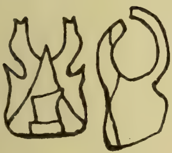
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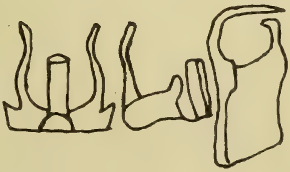
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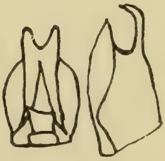
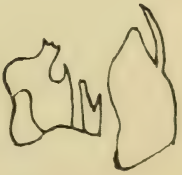

13. plagifera


14. sumitra

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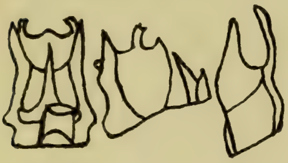
B.6. CELAENORRHINUS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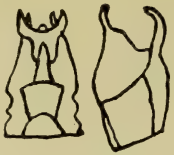
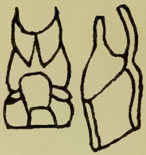

16. leucocera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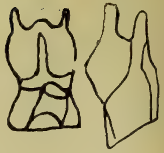
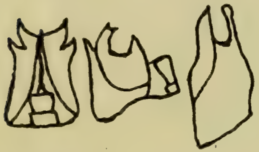

18. entellus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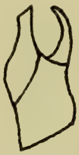
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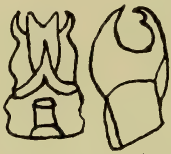
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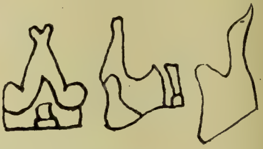
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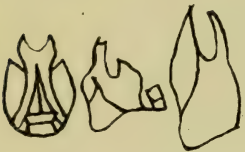
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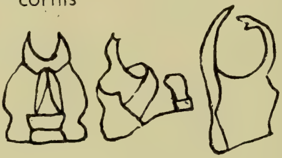
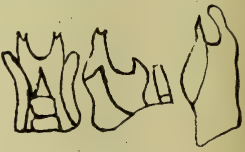

22. spilothyrus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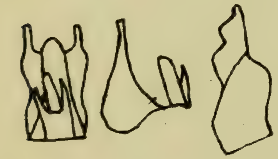
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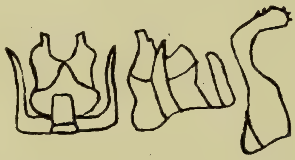
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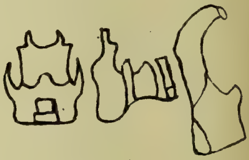
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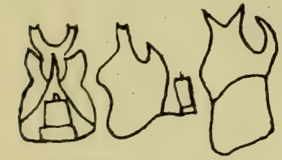
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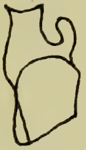
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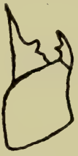
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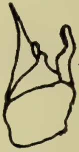
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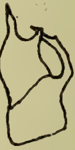
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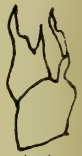
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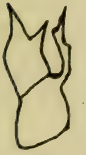
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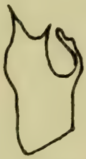
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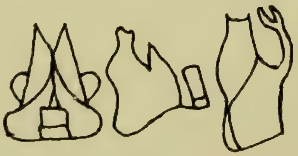
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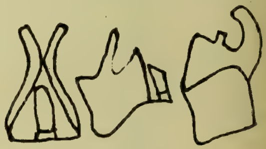
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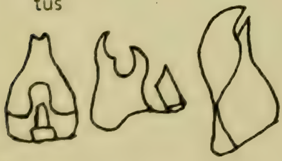
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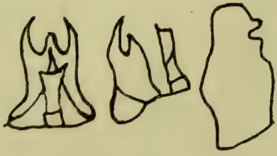
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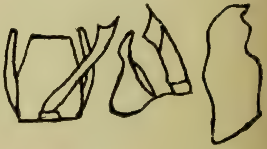
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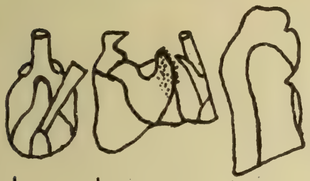
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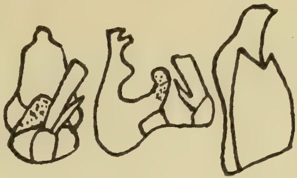
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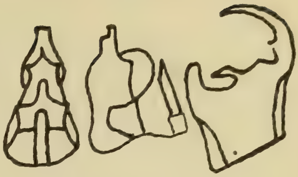
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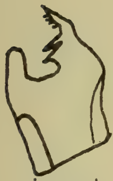
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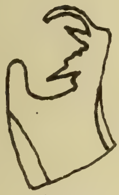
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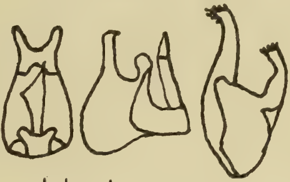
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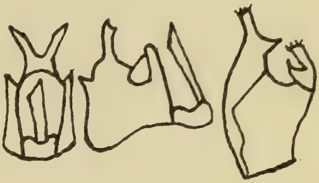
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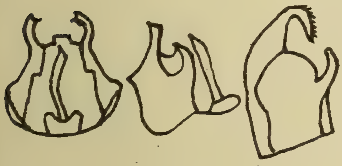
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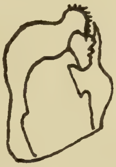
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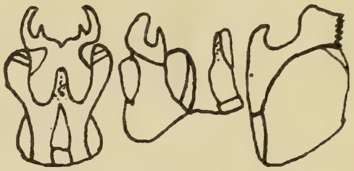
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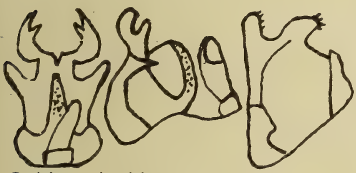
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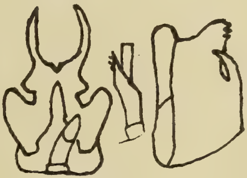
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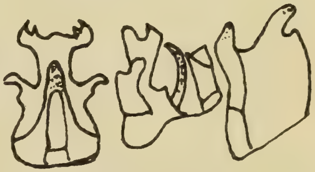
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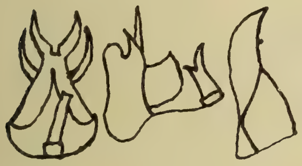
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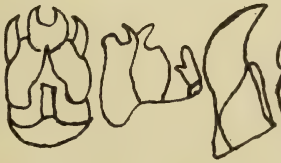
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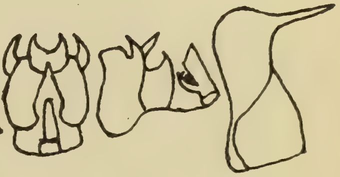
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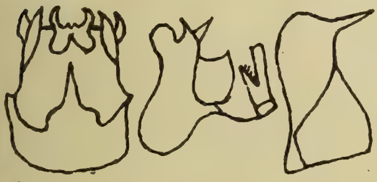
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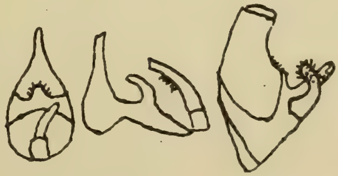
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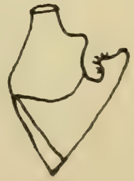
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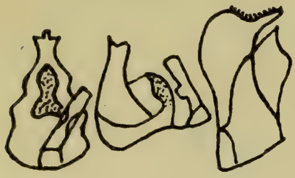
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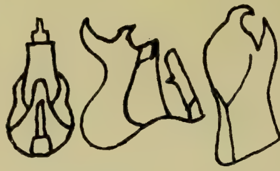
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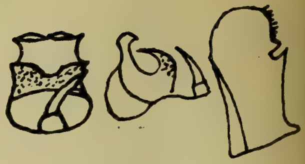
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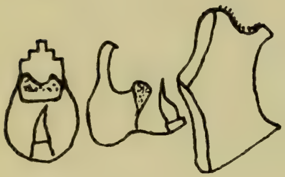
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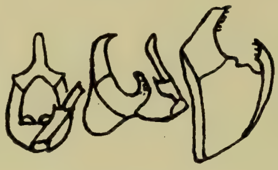
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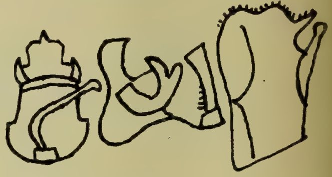
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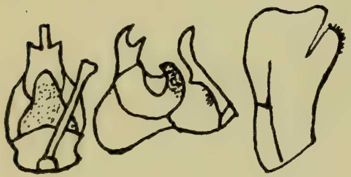
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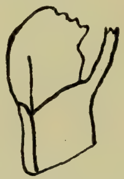
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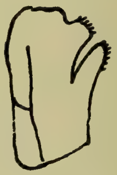
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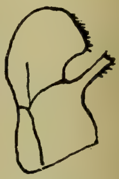
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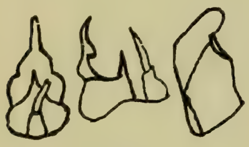
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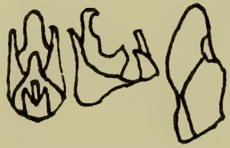
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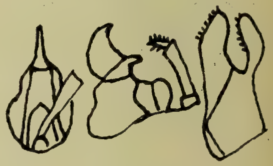
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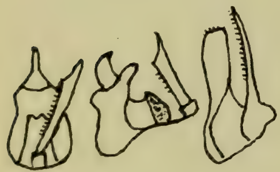
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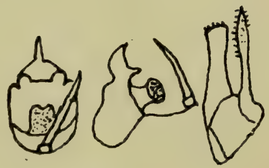
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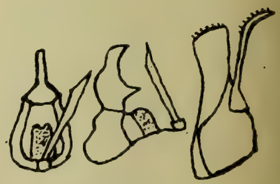
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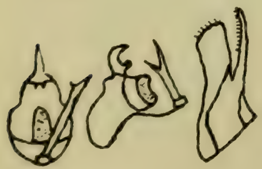
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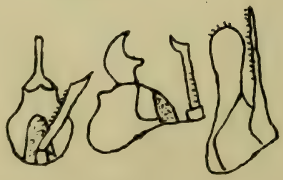
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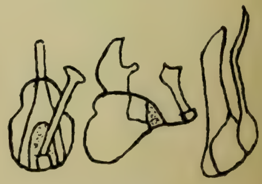
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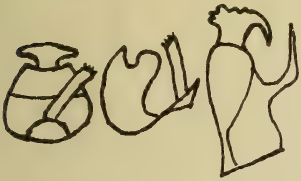
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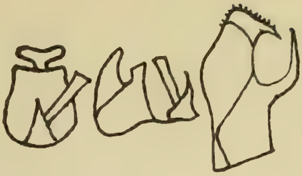
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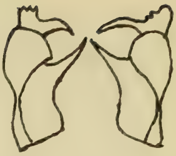
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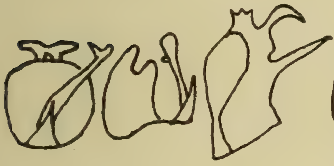
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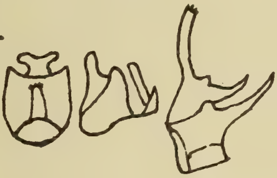
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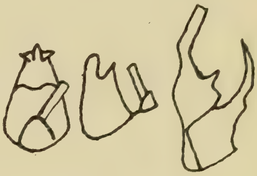
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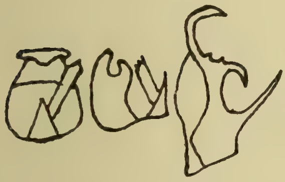
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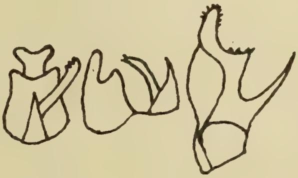
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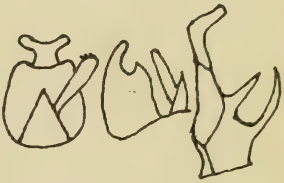
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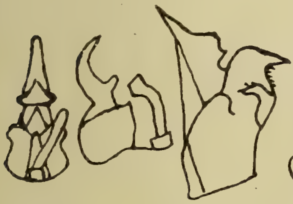
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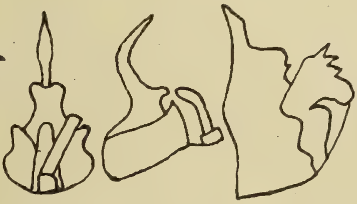
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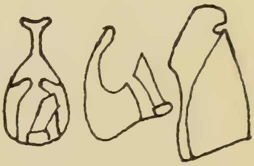
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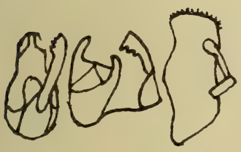
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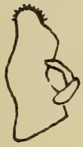
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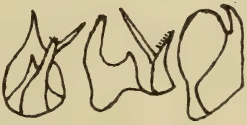
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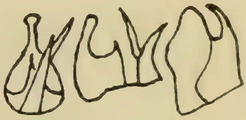
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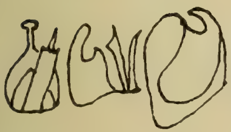
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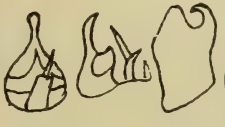
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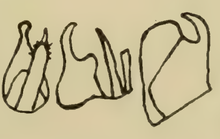
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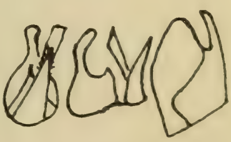
7. celebica

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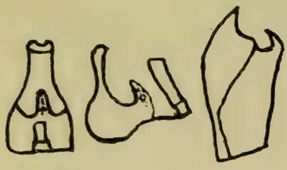
C.12. TAGIADES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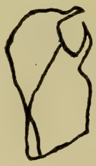
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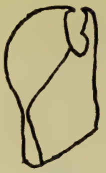
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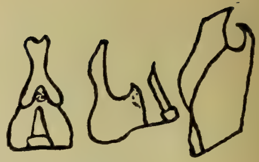
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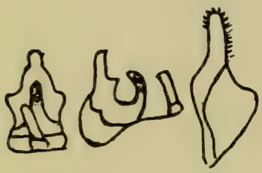
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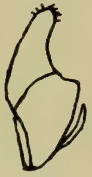
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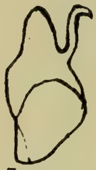
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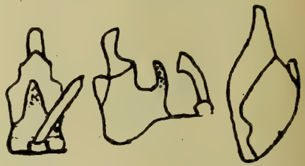
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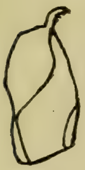
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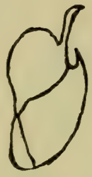
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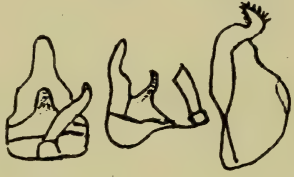
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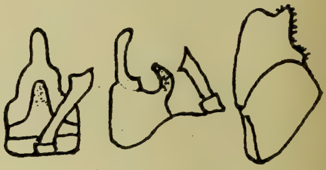
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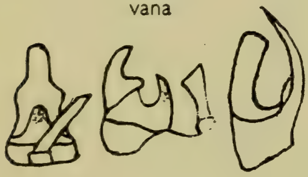
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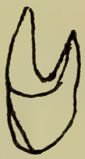
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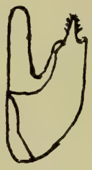
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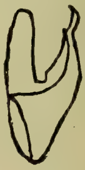
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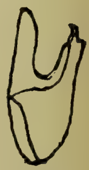
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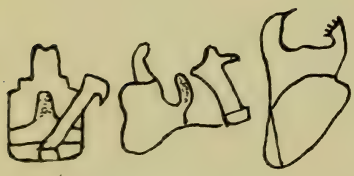
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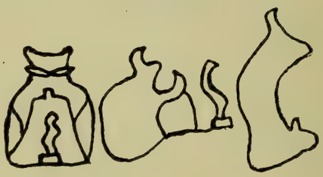
C.13. MOOREANA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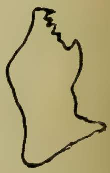
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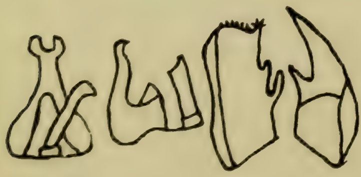
C.14. ABRAXIMORPHA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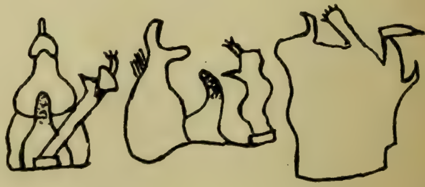
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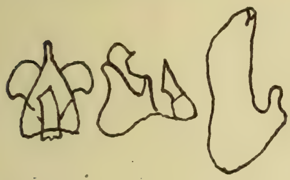
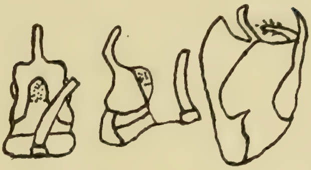
C.15. EXOMETOECA



nycteris

C.16. CTENOPTILUM



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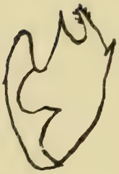

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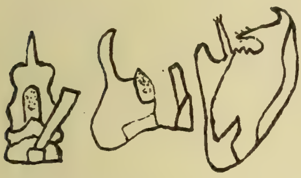
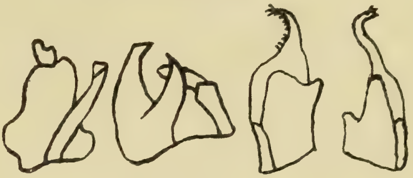


2. multiguttata

C.17. ODONTOPTILUM



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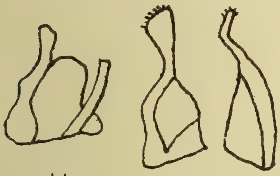

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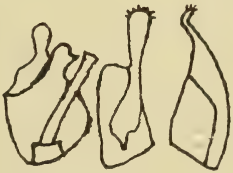

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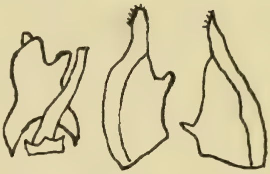

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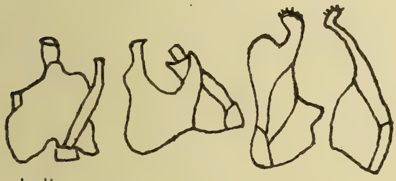

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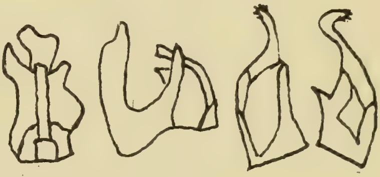

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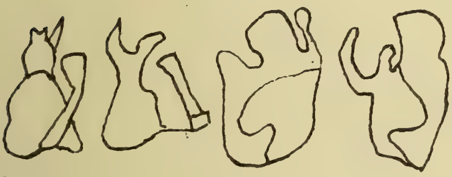
C.18. CAPRONA



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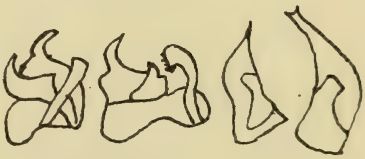

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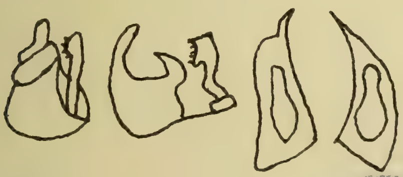

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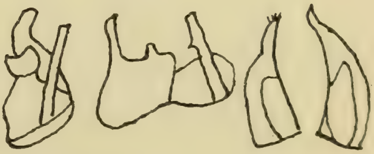
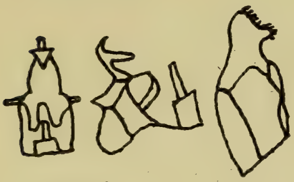


3. alida

BRITISH MUSEUM NATURAL HISTORY

D.1. ERYNNIS



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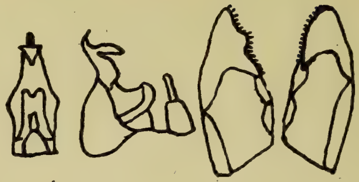

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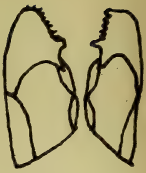

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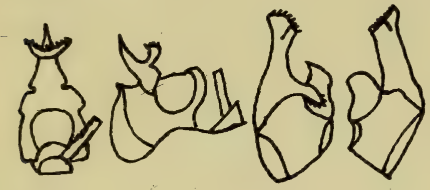

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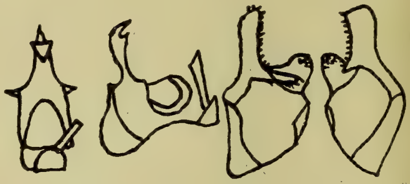

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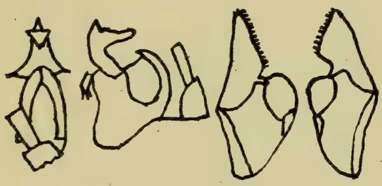

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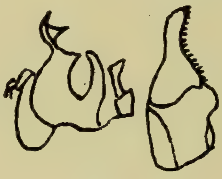

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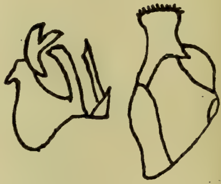

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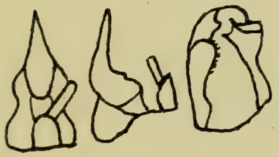
D.2. GOMALIA

D.3. CARCHARODUS



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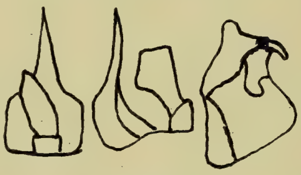

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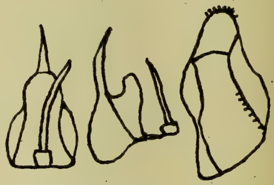

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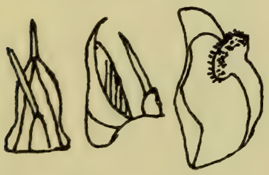

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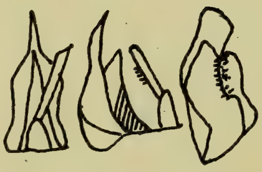
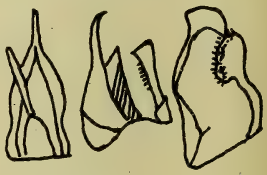


4. stauderi



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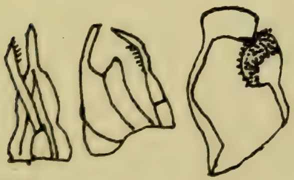

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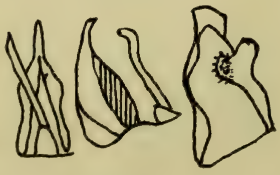

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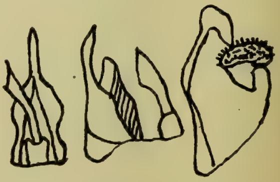
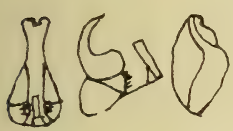


dravira

D.4. SPIALIA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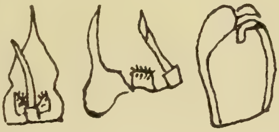
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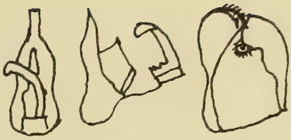
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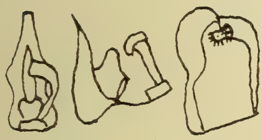
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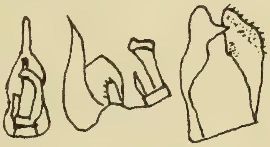
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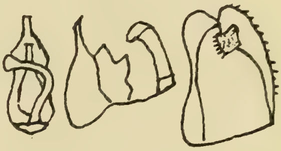
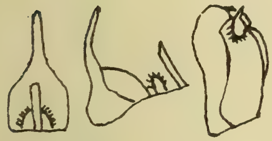

6. doris

D.5. MUSCHAMPIA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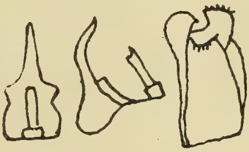
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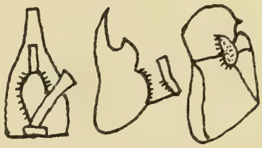
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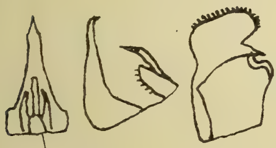
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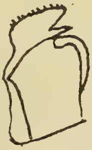
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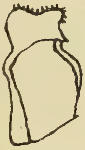
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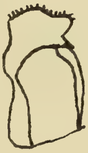
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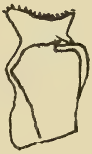
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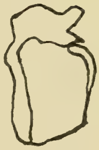
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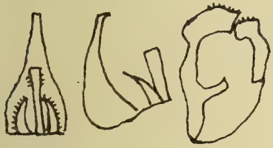
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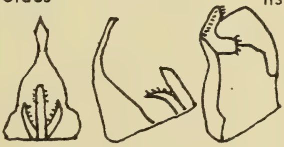
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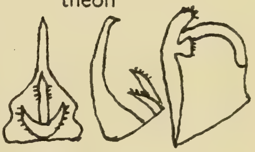
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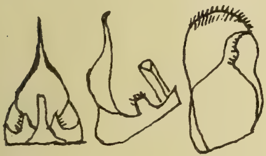
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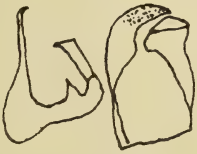
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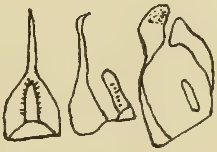
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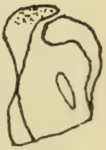
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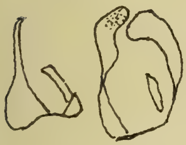
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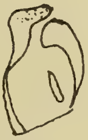
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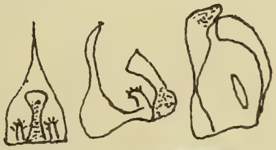
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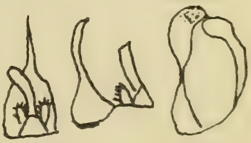
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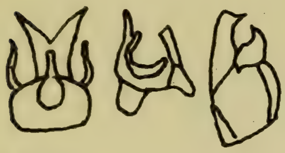
D.6. PYRGUS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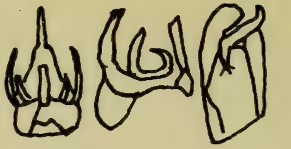
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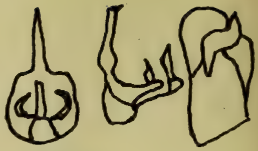
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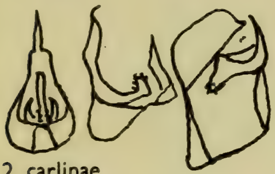
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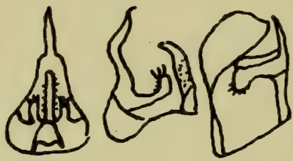
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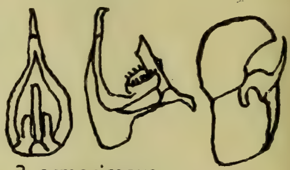
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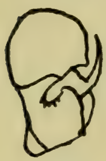
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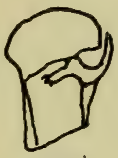
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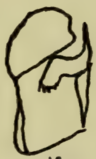
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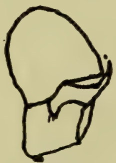
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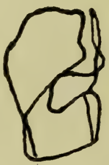
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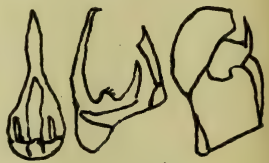
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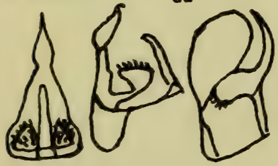
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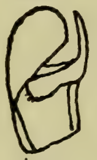
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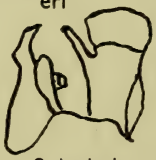
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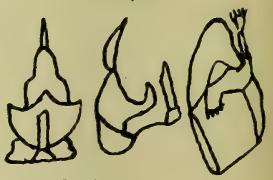
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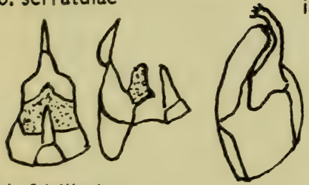
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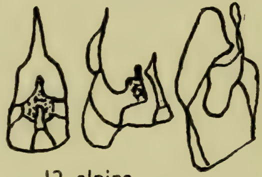
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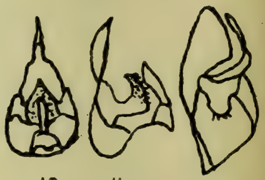
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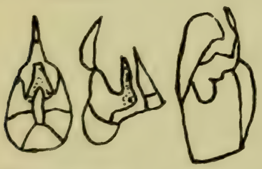
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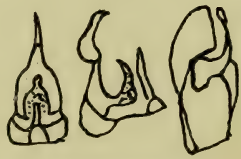
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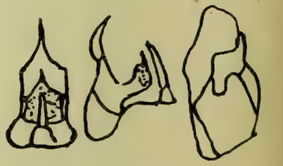
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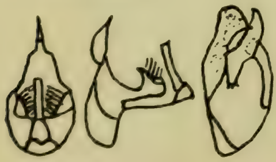
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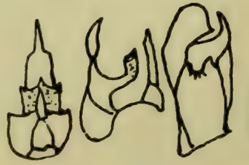
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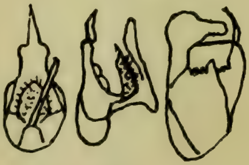
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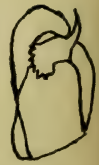
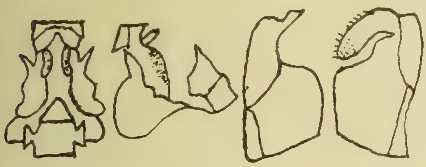
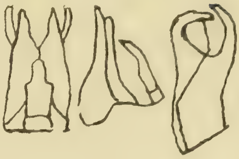

19. dejeani

E.1. VLASTA



extrusus

E.2. FELICENA



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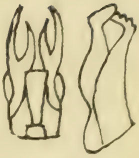
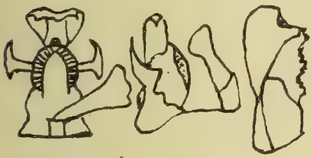
albicilla



2. dora

E.3. TRAPEZITES



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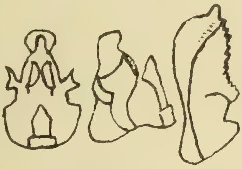

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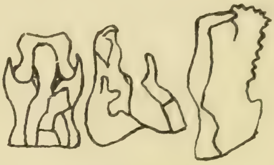

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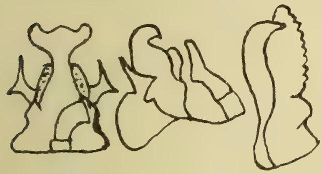

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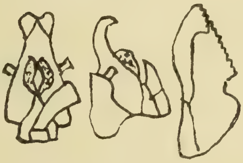

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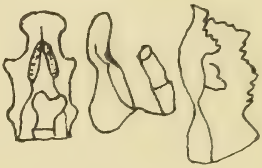

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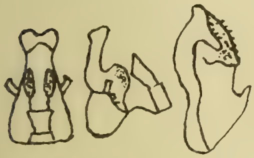

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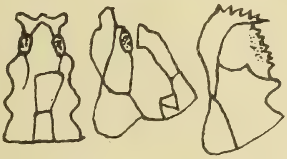

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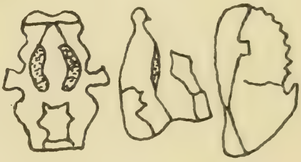

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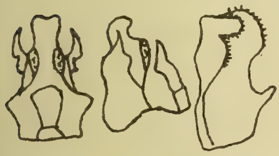
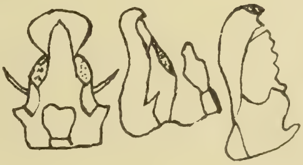
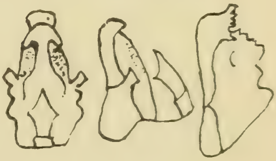


10. petalia



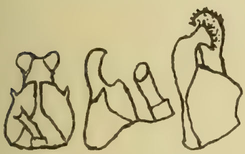
11. lutea

E.4. ANISYNTOIDES



argenteo-ornatus

E.5. ANISYNTA



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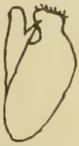

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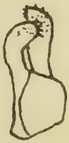
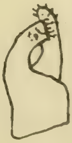
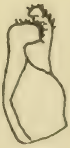


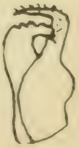
3. cynone



4. tillyardi



5. monticolae



6. dominula

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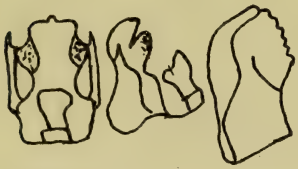

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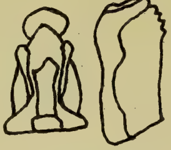

2. munionga

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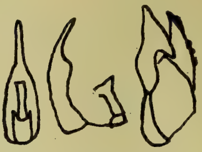

compacta

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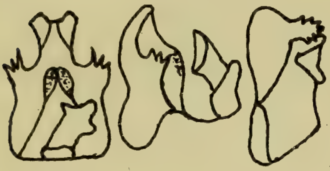

migonitis

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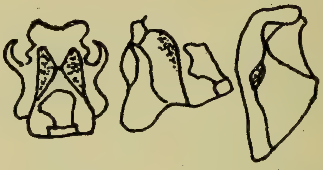

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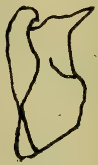

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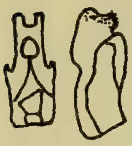

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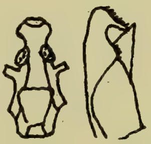

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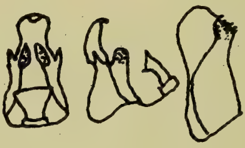

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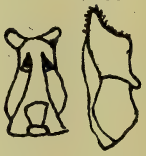

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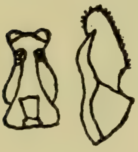

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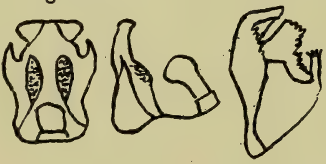

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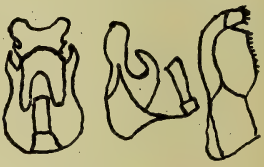

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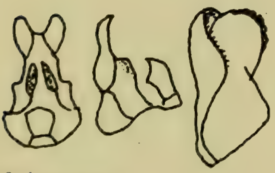

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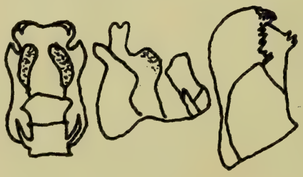
E.10. HESPERILLA



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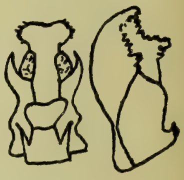

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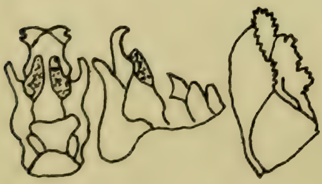
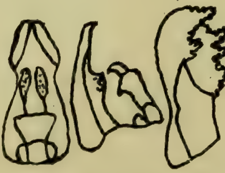
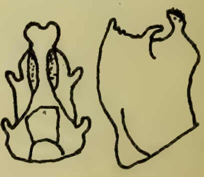


3. donnysa

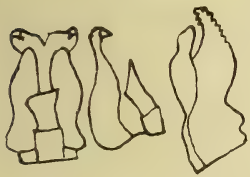


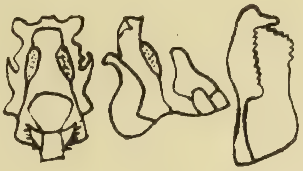
4. chrysotricha



5. chaostola

E.10. HESPERILLA


6. andersoni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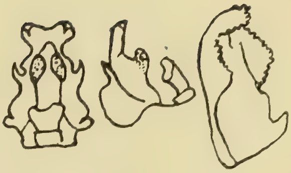
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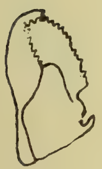
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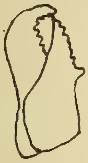
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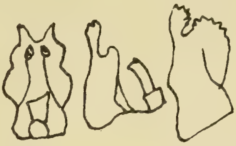
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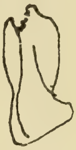
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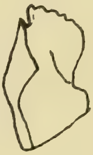
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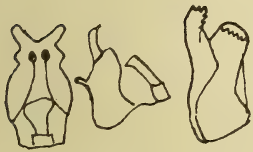
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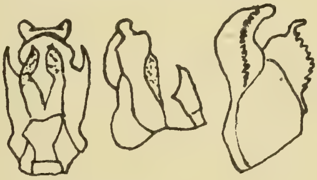
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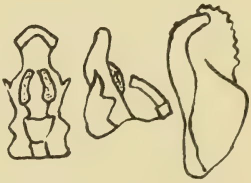
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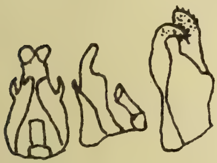
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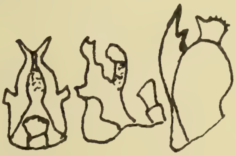
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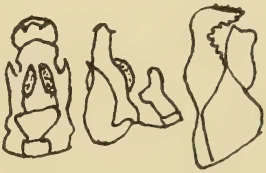
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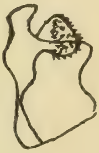
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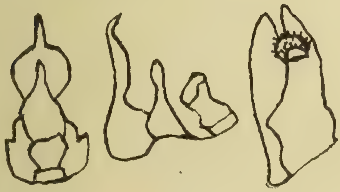
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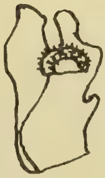
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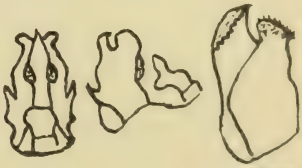
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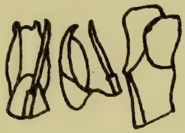
F.1. LEPTALINA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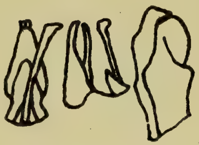
F.2. CARTEROCEPHALUS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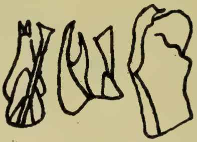
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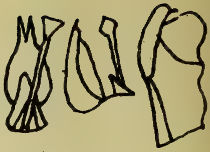
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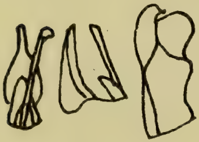
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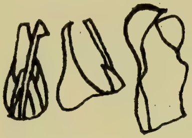
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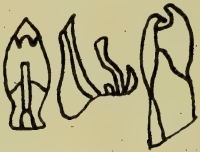
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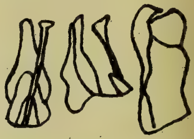
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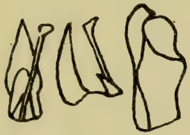
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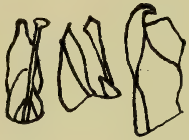
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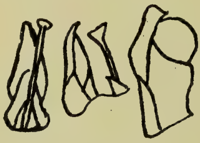
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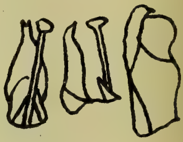
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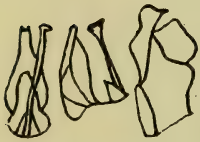
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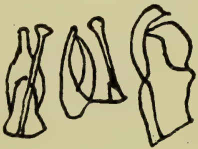
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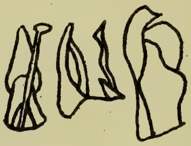
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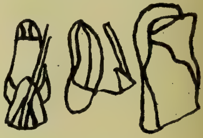
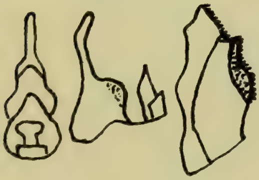
F.3. HETEROPTERUS


morpheus

F.4. BARCA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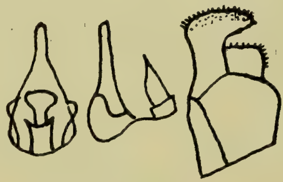
F.5. APOSTICTOPTERUS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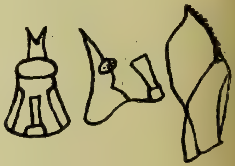
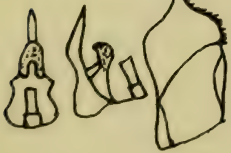
G.1. ASTICTOPTERUS


jama

G.2. ARNETTA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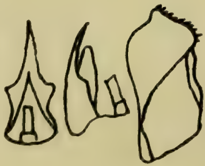
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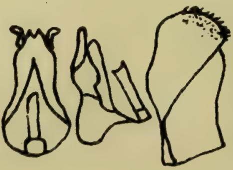
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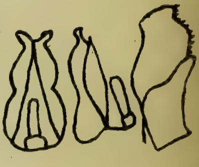
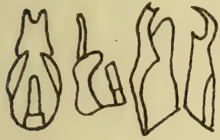
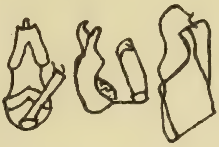

4. verones

G.3. OCHUS

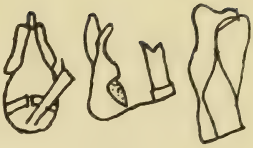


subvittatus

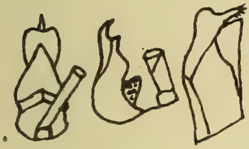
G.4. BARACUS



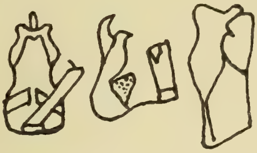
vittatus



subditus

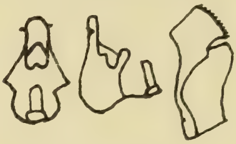


hampsoni



septentrionum

G.7. AEROMACHUS



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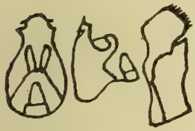

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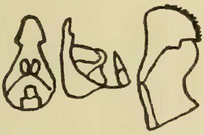
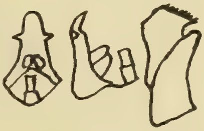


3. inachus



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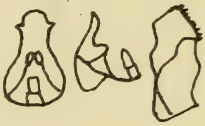
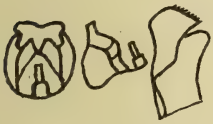
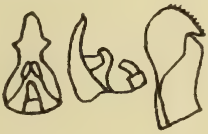


5. piceus



6. jhora



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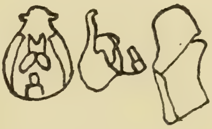
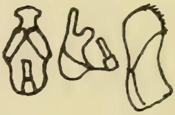
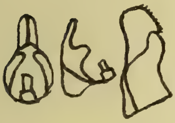


8. dubius



9. musca



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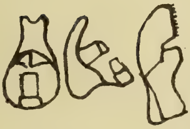
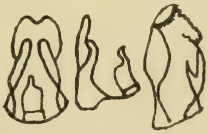
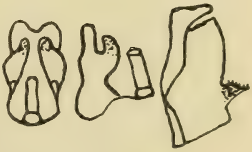


11. plumbeola

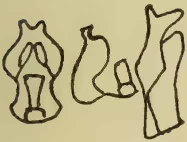
G.5. AMPITTIA



1. dioscorides



2. virgata



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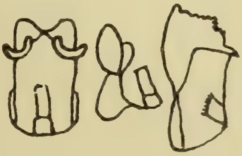

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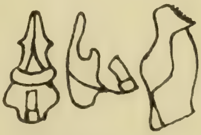

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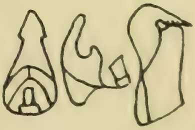
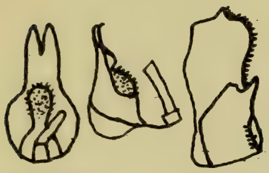


6. nanus

G.7. SEBASTONYMA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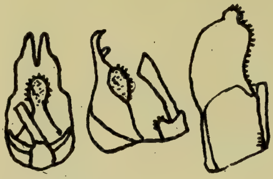
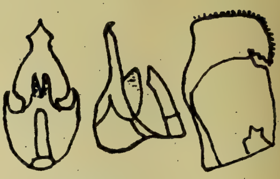

2. pudens

G.8. SOVIA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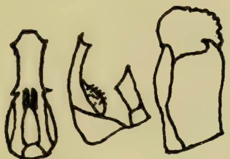
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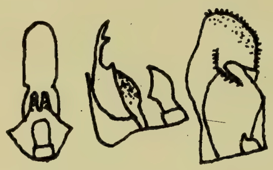
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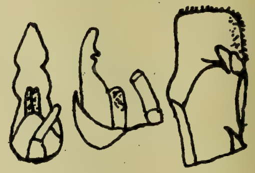
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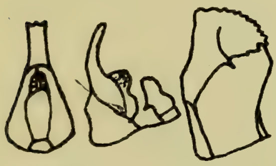
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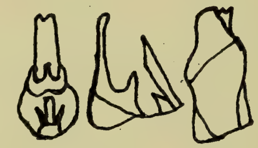
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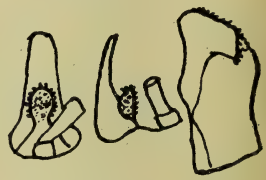
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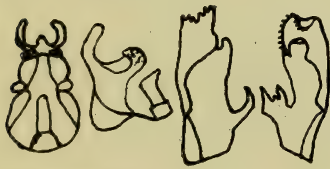
G.9. PEDESTES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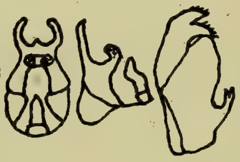
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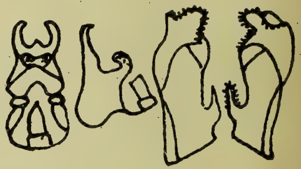
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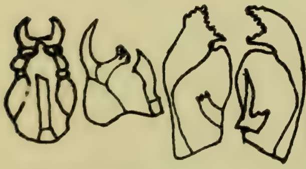
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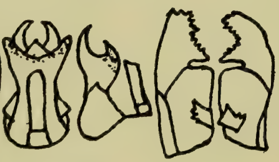
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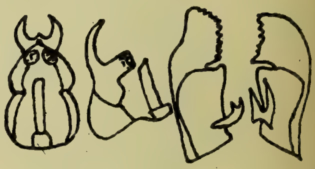
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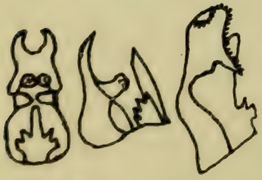
G.10. ONRYZA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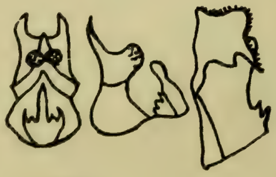
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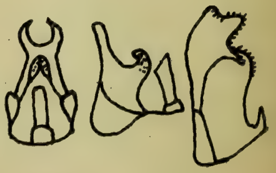
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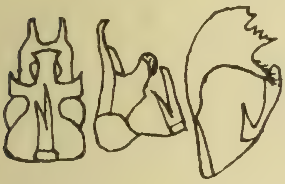
G.11. THORESSA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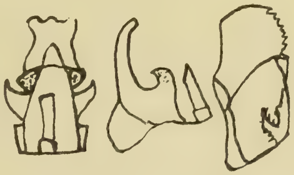
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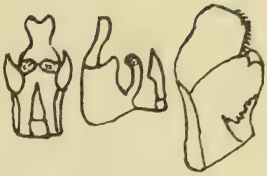
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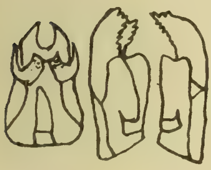
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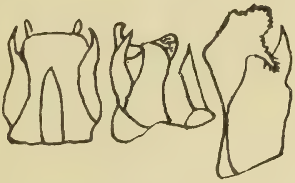
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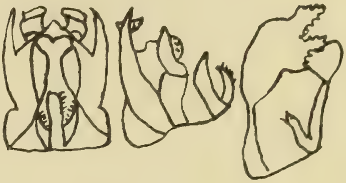
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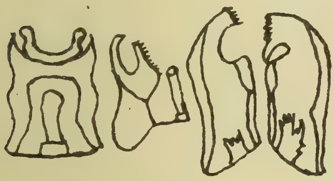
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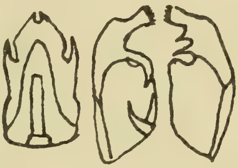
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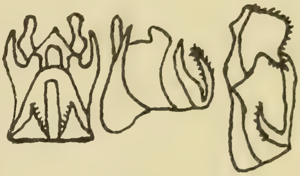
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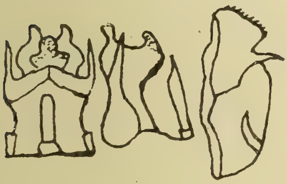
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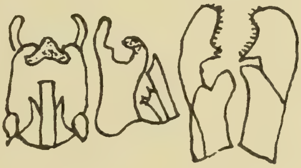
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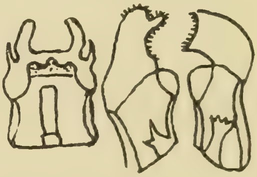
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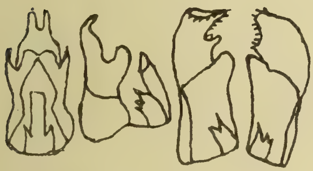
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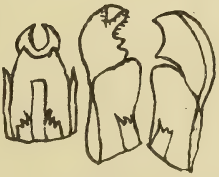
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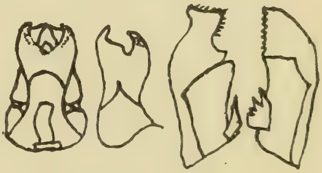
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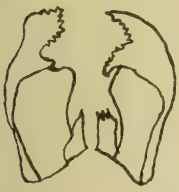
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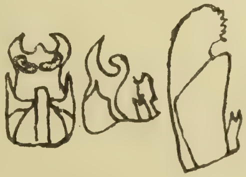
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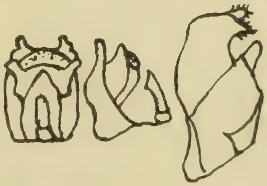
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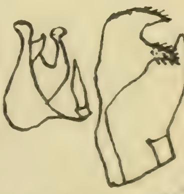
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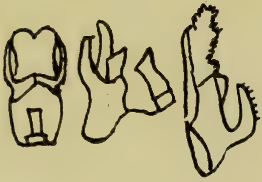
G.12. HALPE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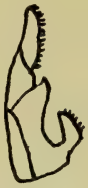
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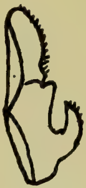
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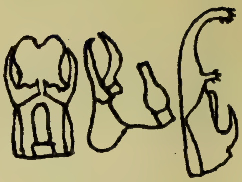
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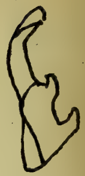
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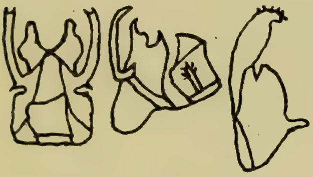
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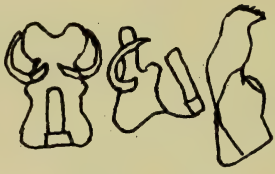
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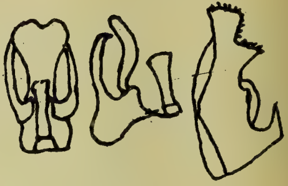
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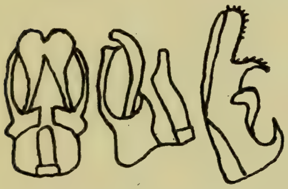
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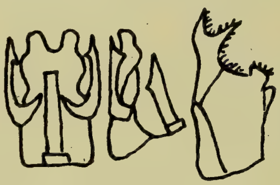
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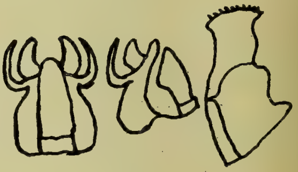
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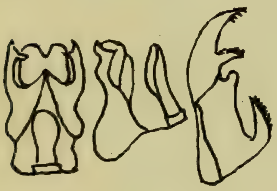
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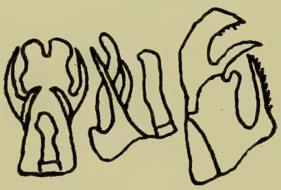
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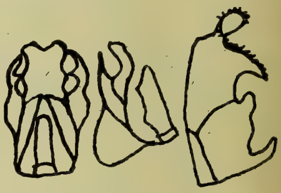
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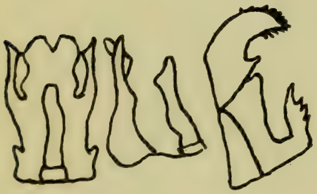
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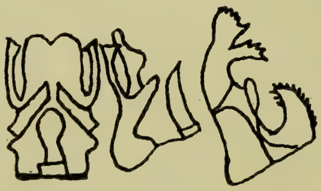
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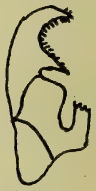
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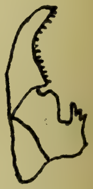
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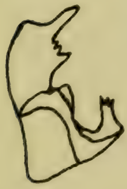
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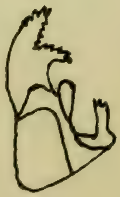
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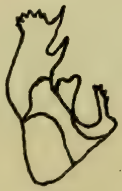
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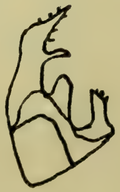
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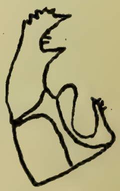
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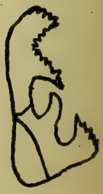
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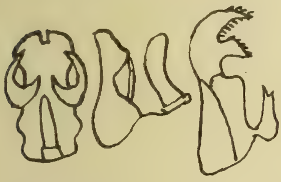
G.12. HALPE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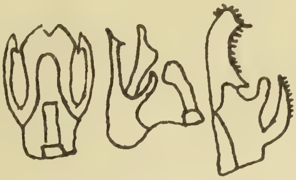
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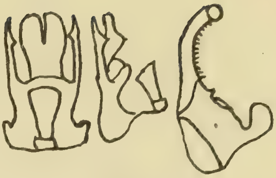
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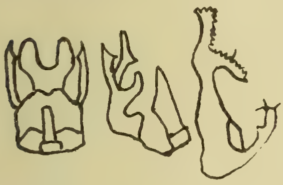
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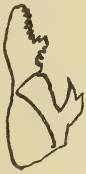
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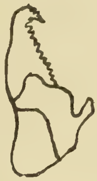
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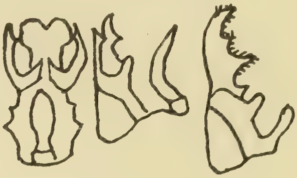
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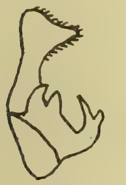
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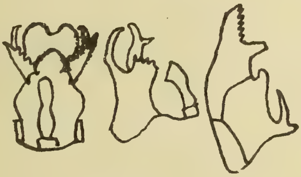
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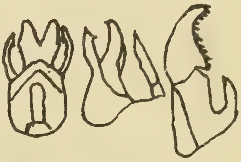
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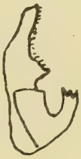
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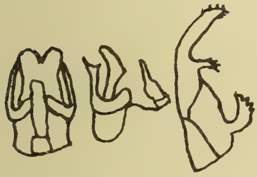
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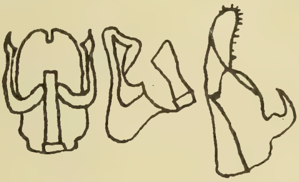
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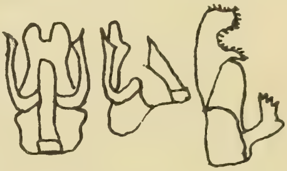
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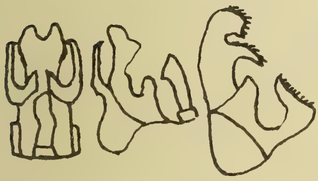
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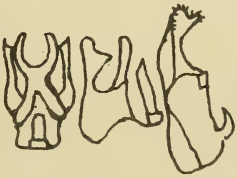
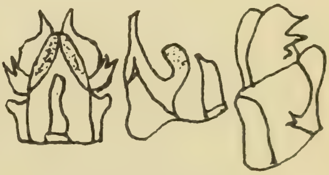

25. hieron

G.13. PITHAURIA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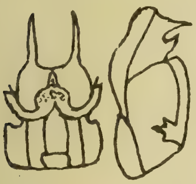
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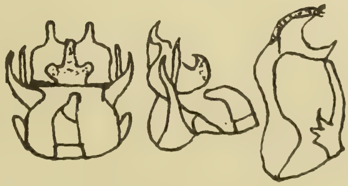
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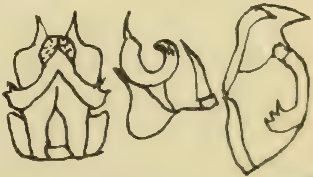
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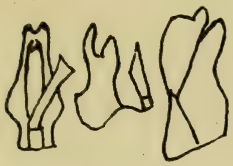
H.2. EOGENES



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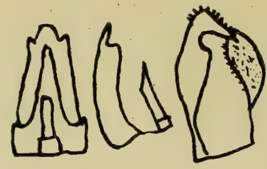

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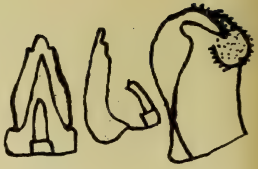

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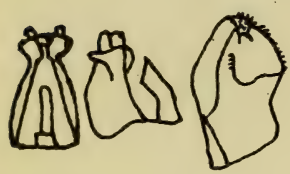

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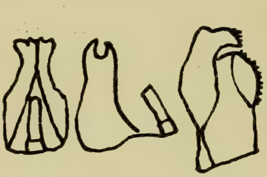

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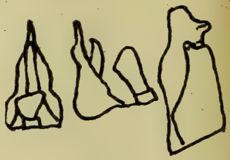

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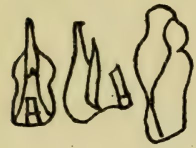

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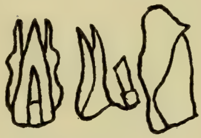

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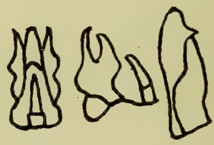

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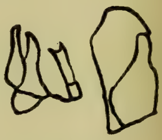

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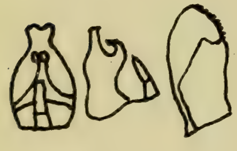

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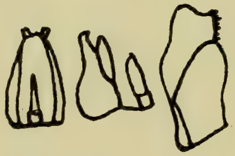

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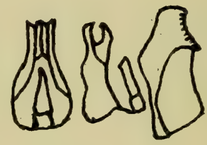

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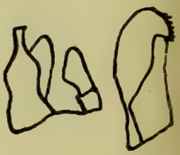

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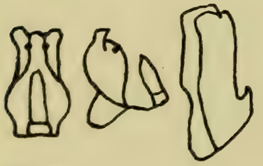
I.3. PSOLOS

I.4. STIMULA

I.5. ANCISTROIDES



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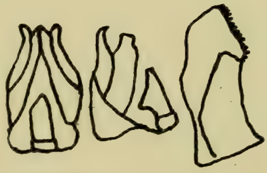

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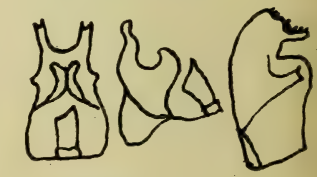

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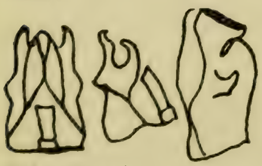

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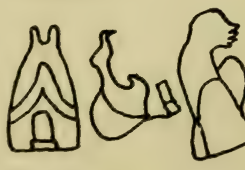

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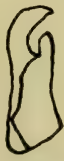

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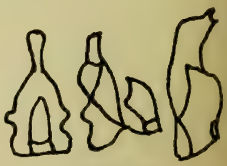

6. fulgur

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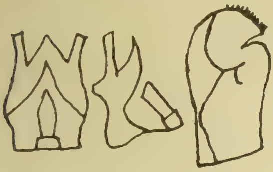
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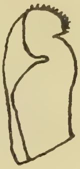
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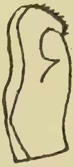
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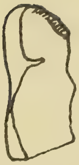
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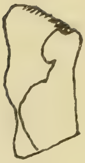
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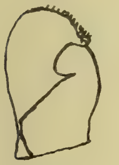
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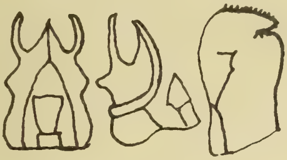
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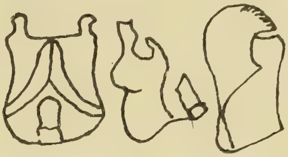
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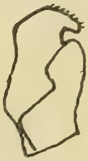
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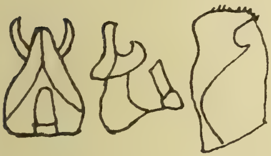
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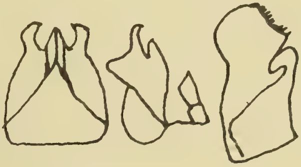
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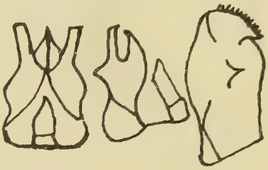
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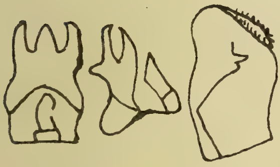
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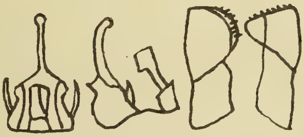
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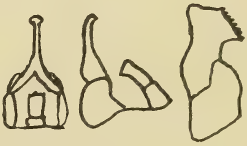
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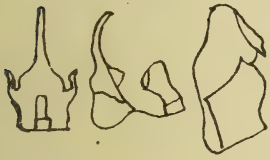
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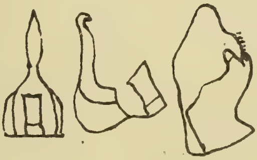
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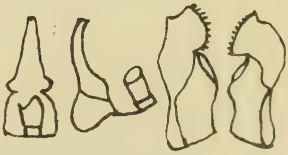
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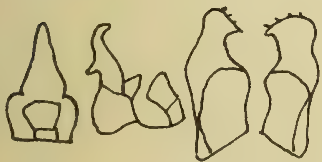
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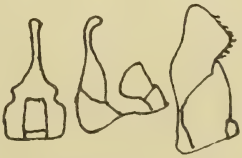
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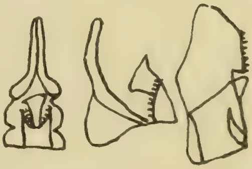
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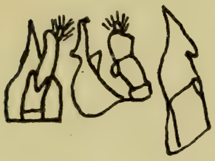
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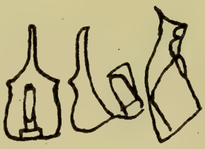
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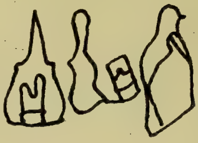
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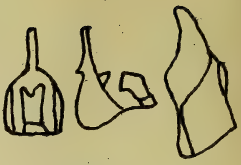
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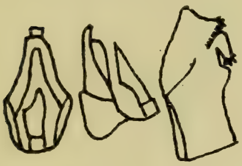
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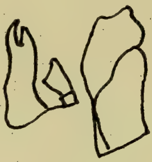
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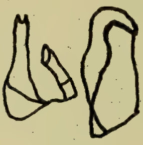
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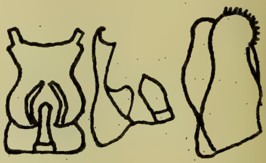
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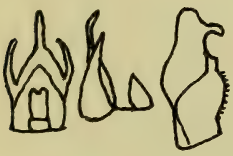
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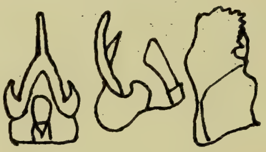
J.5. ZOGRAPHETUS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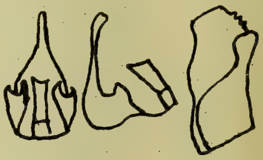
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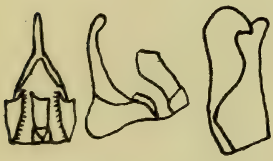
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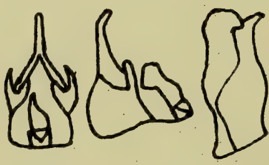
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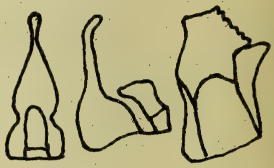
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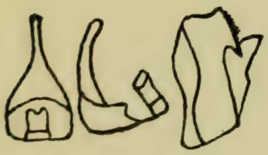
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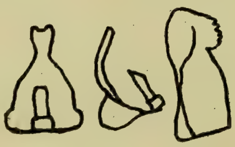
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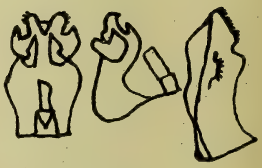
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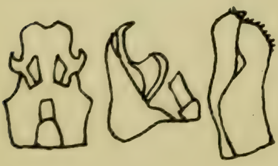
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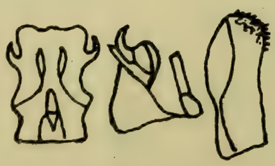
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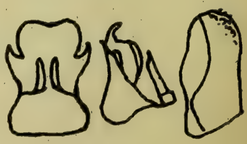
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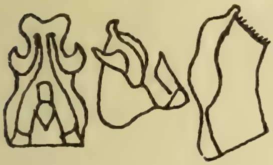
J.8. QUEDARA



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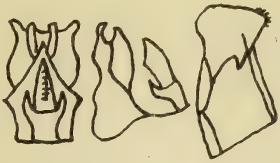
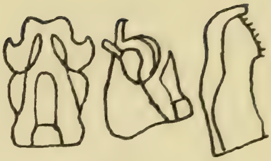


2. inornatus



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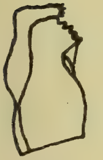

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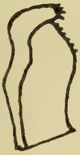

4. monteithii

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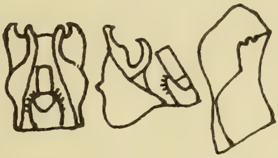

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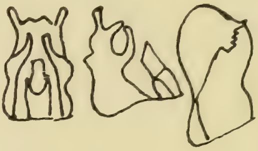

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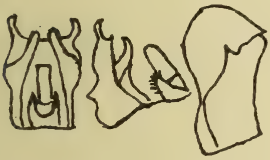

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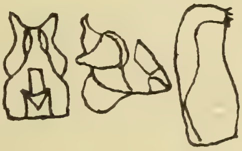

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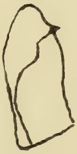

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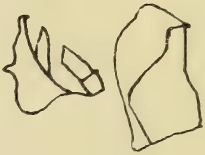

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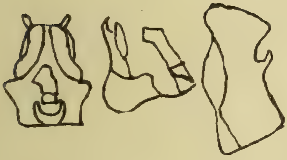

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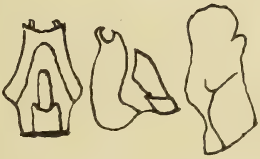

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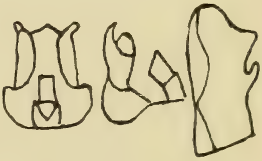

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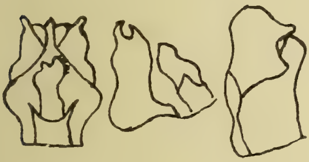

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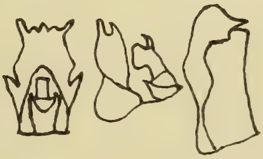

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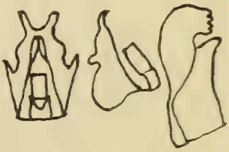

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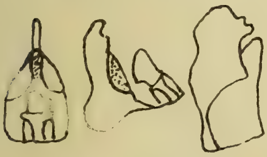
J.10. PLASTINGIA



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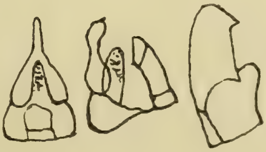

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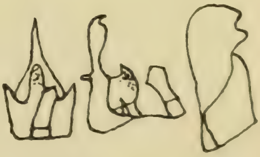
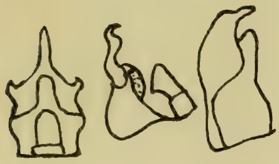


4. latoia

BRITISH MUSEUM

J.10. PLASTINGIA



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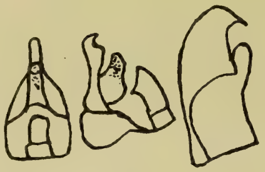

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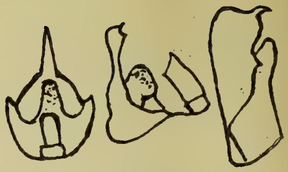

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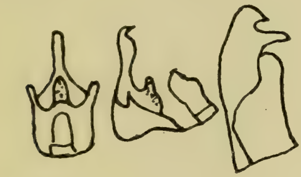

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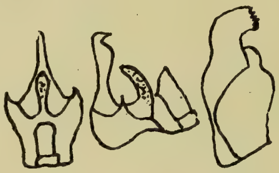

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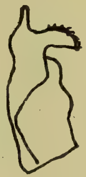

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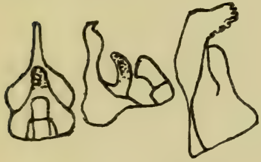

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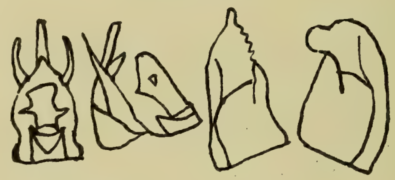

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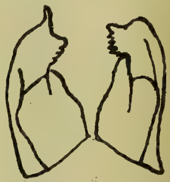

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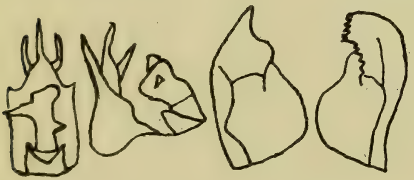

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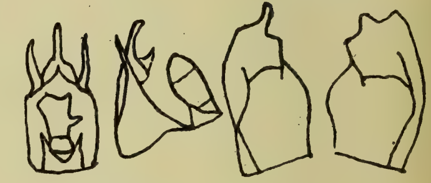

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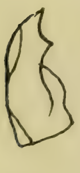

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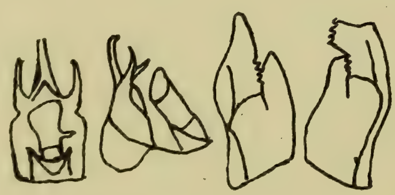

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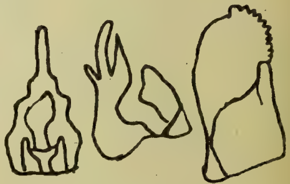

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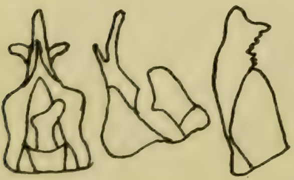

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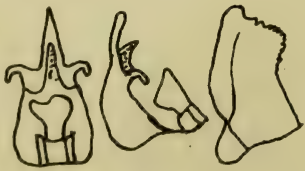

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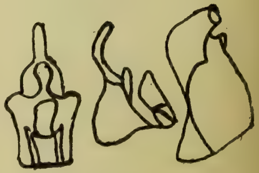

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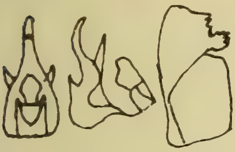
J.10. PLASTINGIA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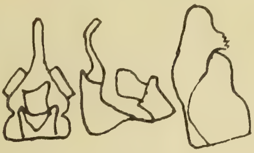
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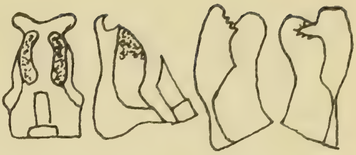
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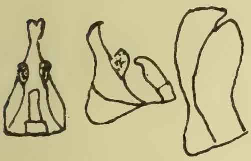
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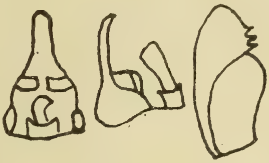
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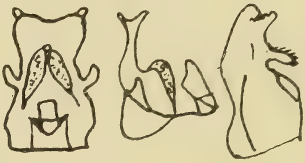
J.11. LOTONGUS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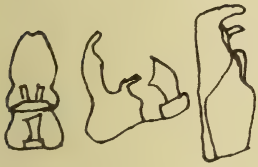
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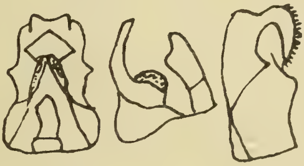
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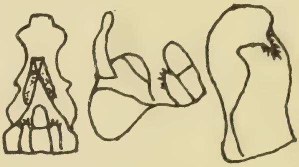
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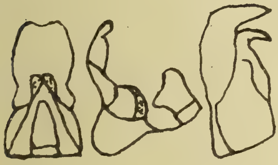
J.12. ZELA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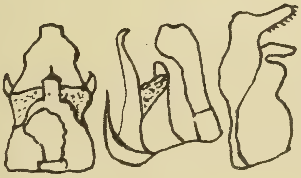
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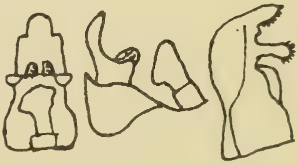
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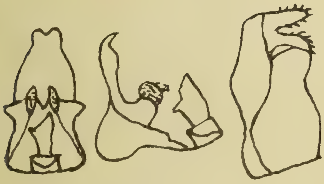
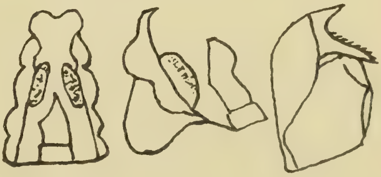

4. smaragdinus

J.13. GANGARA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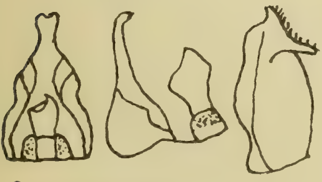
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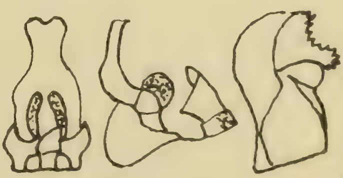
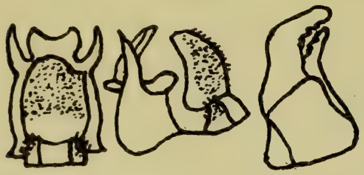

3. lebadea

J.14. ERIONOTA



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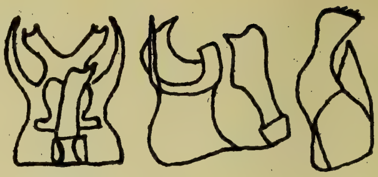

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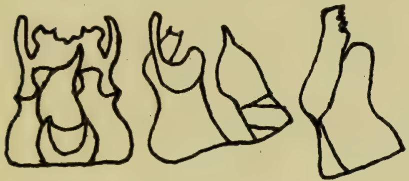

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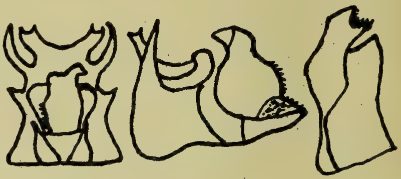

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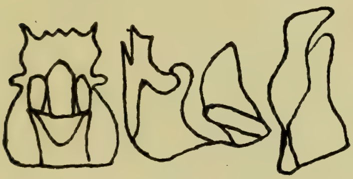

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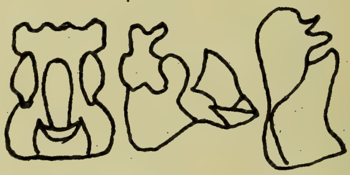

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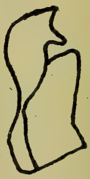

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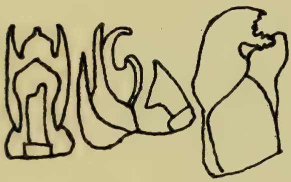

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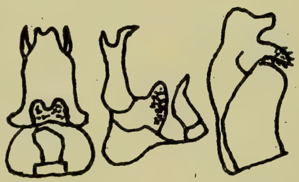
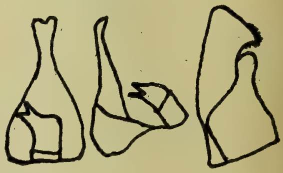
J.15. ILMA



irvina

J.16. GE



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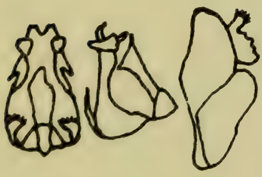

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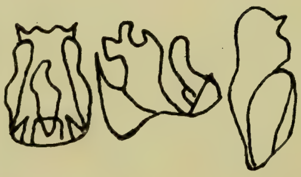

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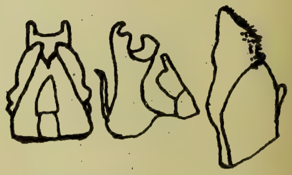

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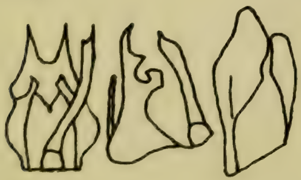

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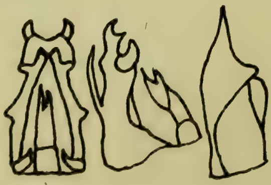

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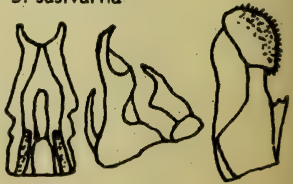
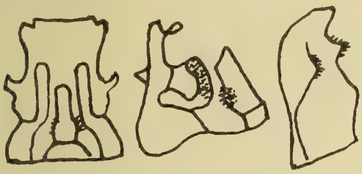


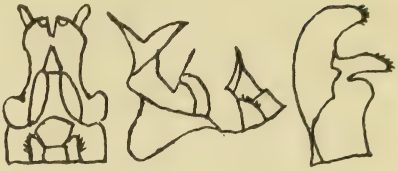
6. celsina

J.18. PUDICITIA



pholus

J.19. UNKANA



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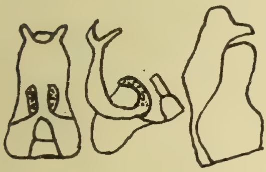
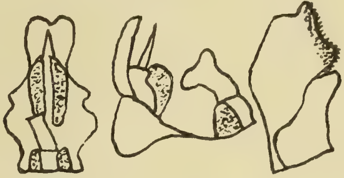


2. mytheca

J.20. HIDARI



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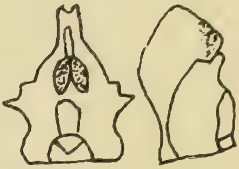

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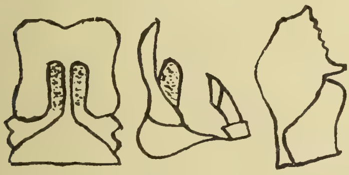
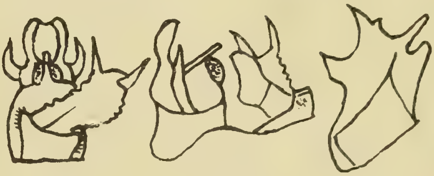


3. doesoena

J.21. EETION



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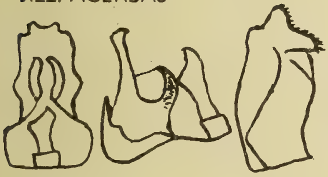
J.22. ACERBAS



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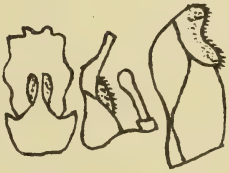

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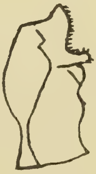

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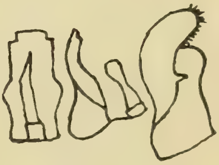

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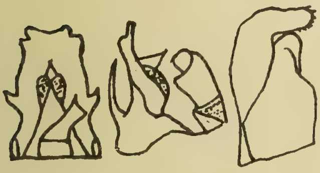

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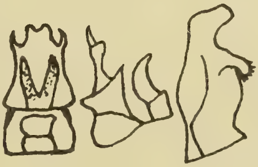

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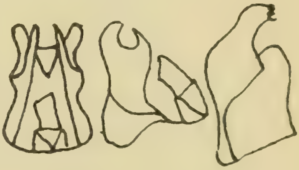
J.23. PIRDANA



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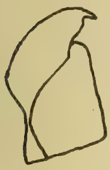

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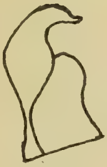

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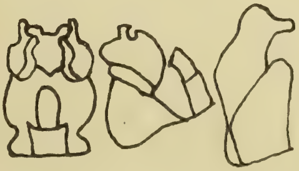

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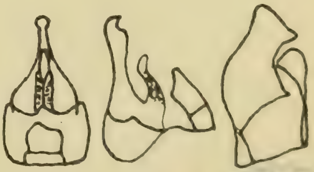

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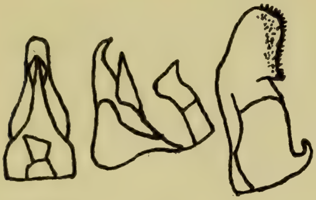

cyrina

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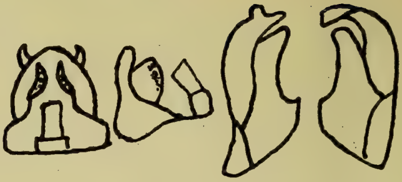

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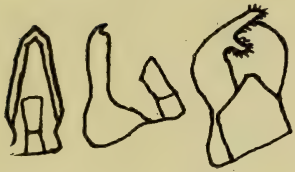
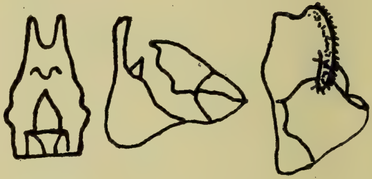


2. papua

J.26. TIACELLIA



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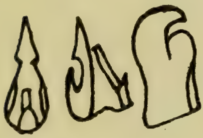
K.1. THYMELICUS



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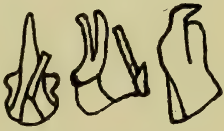

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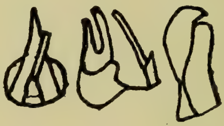

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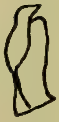

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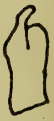

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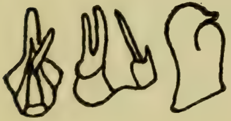

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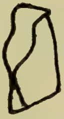

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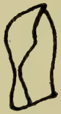

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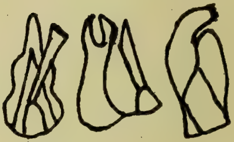

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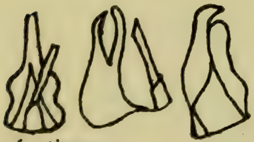

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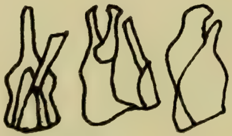

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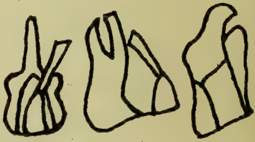

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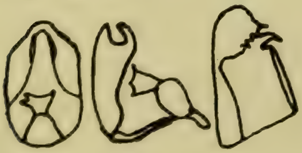
K.2. HESPERIA



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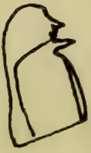

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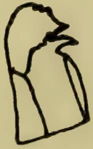

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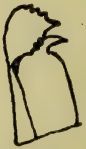

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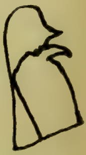
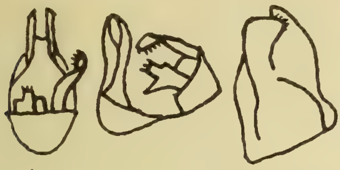


florinda

K.3. OCHLODES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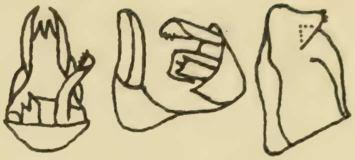
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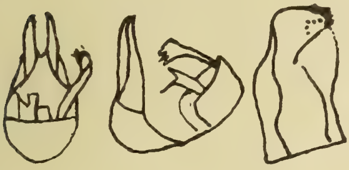
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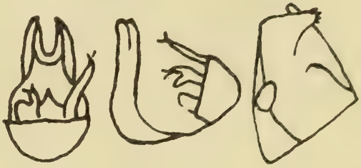
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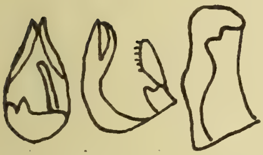
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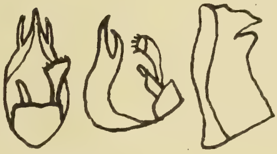
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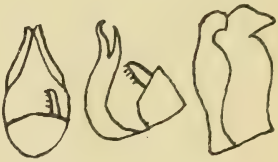
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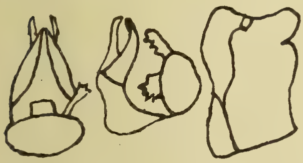
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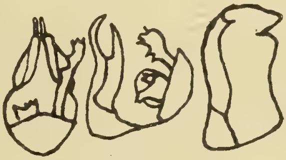
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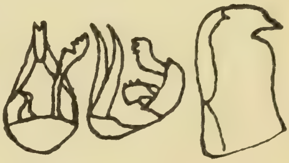
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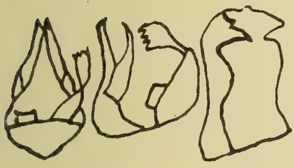
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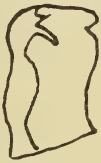
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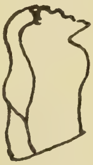
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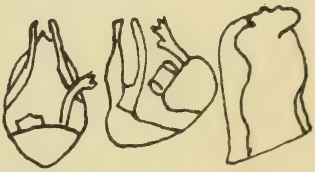
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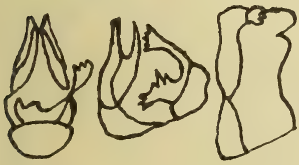
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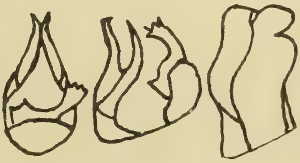
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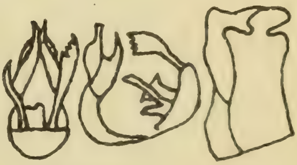
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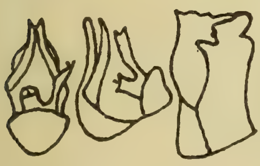
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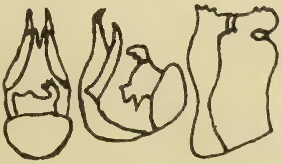
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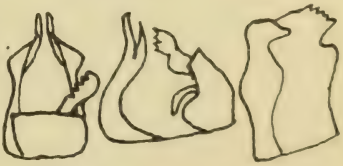
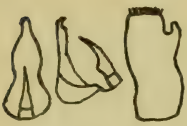

12. klapperichii

L.1. TARACTROCERA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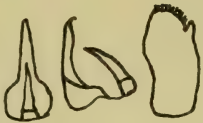
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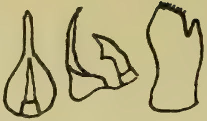
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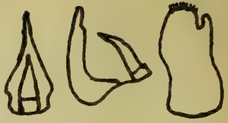
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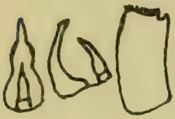
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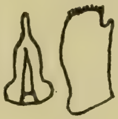
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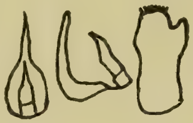
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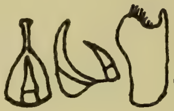
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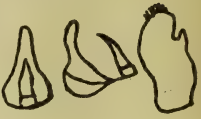
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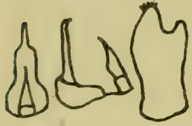
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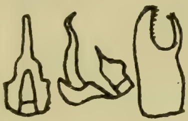
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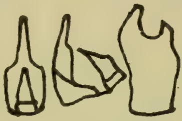
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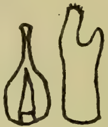
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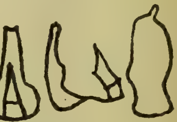
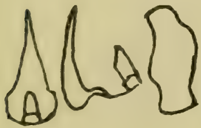

14. papyria

L.2. OCYBADISTES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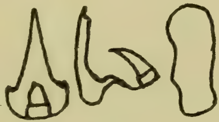
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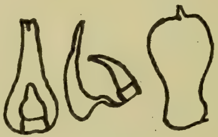
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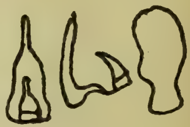
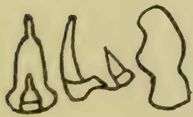

4. ardea

L.3. SUNIANA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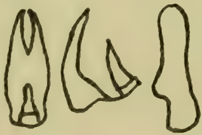
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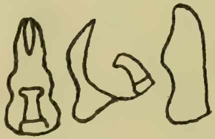
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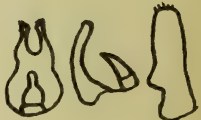
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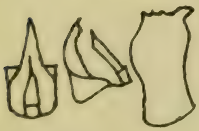
L.4. ORIENS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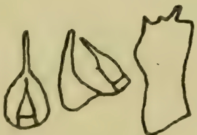
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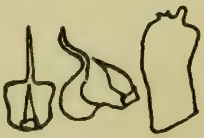
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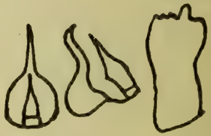
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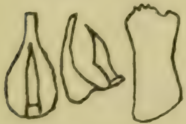
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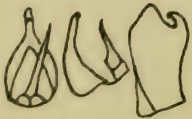
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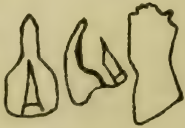
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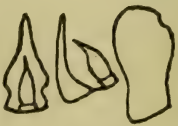
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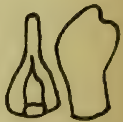
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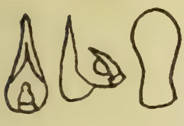
L.5. POTANTHUS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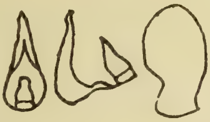
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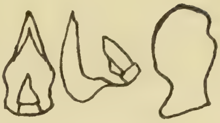
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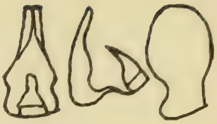
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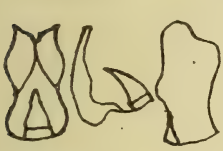
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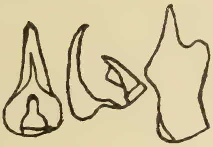
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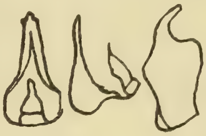
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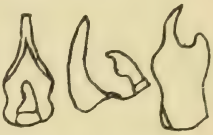
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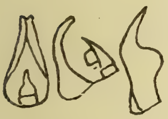
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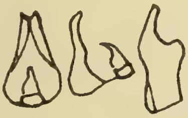
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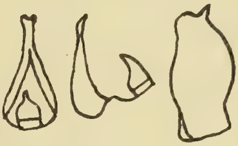
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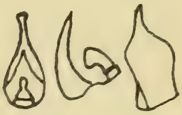
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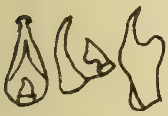
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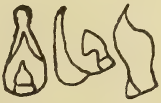
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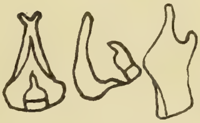
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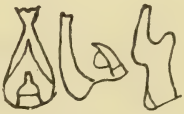
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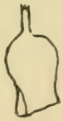
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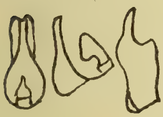
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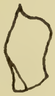
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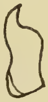
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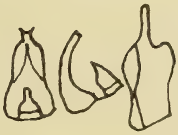
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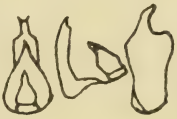
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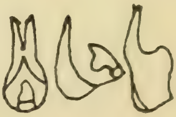
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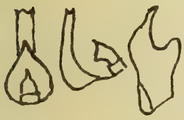
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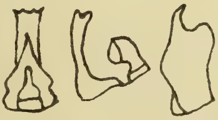
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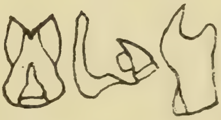
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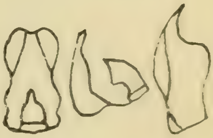
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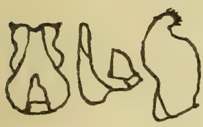
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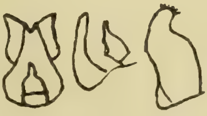
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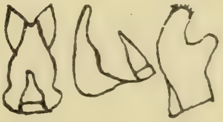
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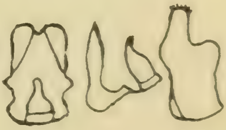
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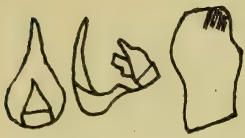
L.6. ARRHENES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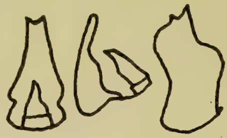
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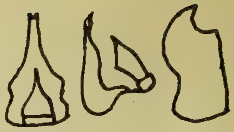
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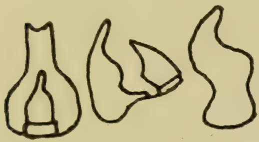
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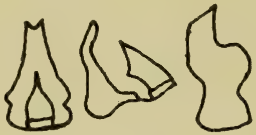
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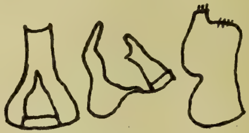
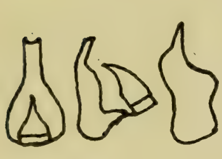

6. tranquilla

L.7. TELICOTA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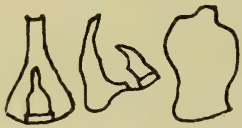
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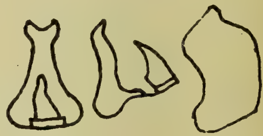
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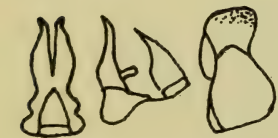
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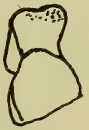
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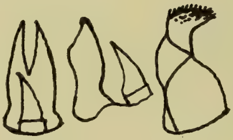
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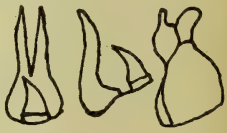
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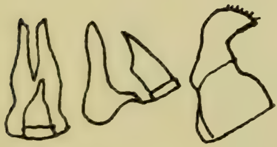
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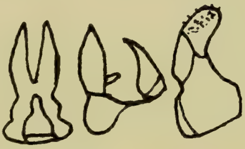
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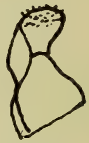
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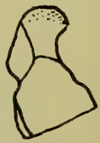
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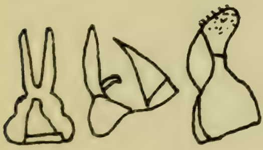
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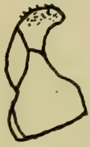
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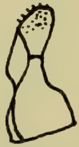
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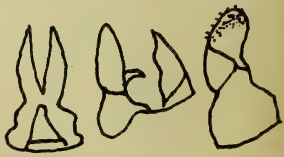
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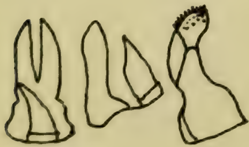
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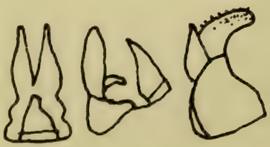
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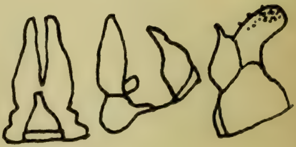
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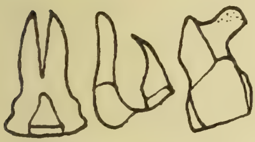
L.7. TELICOTA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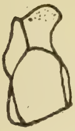
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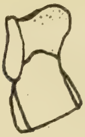
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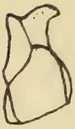
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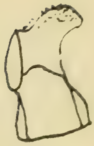
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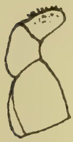
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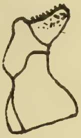
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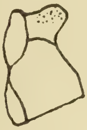
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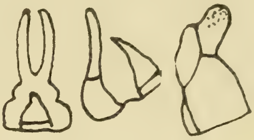
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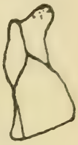
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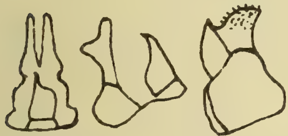
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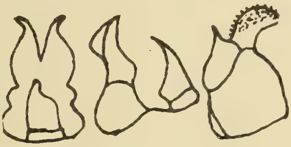
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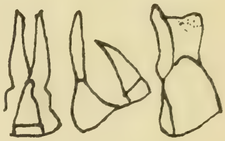
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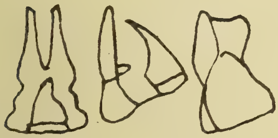
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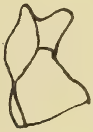
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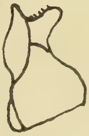
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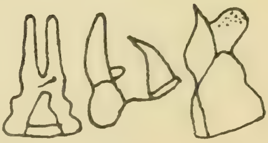
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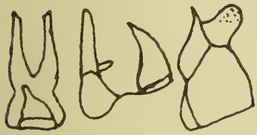
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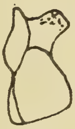
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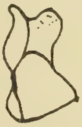
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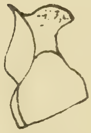
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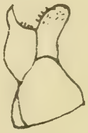
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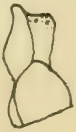
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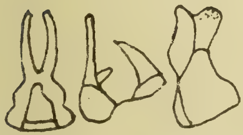
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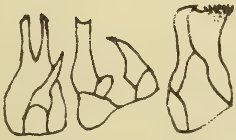
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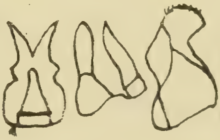
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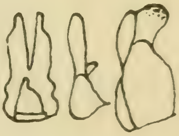
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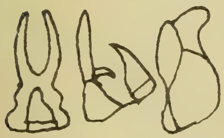
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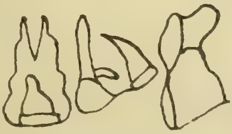
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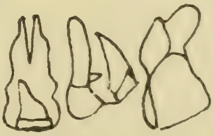
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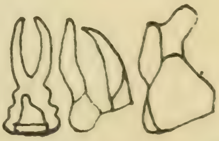
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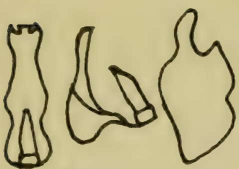
L.8. CEPHRENES



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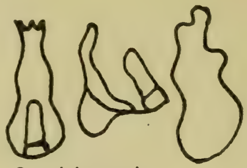

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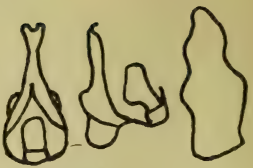

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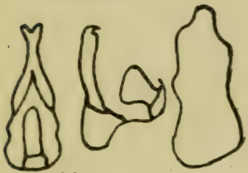

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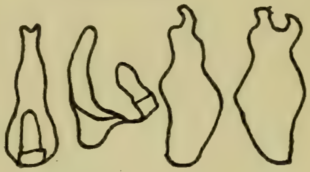

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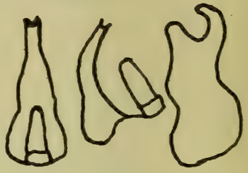

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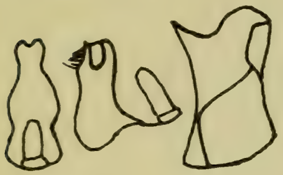
L.9. PRUSIANA



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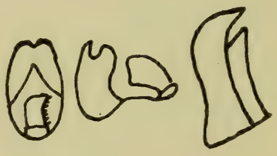

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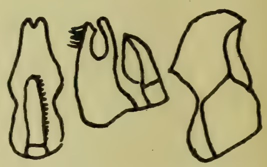

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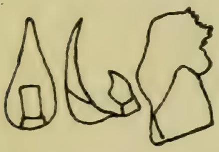
L.10. PASTRIA



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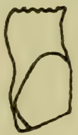

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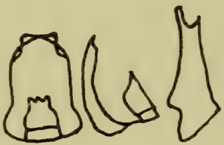
L.11. BANTA



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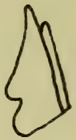

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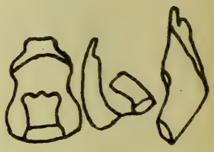

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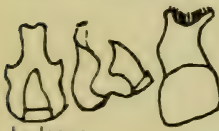
L.12. KOBRONA



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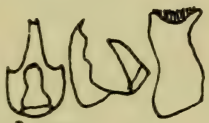

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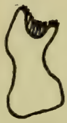

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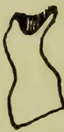

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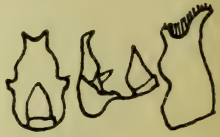

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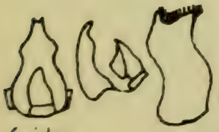

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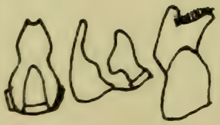

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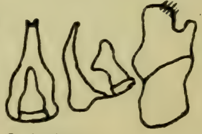

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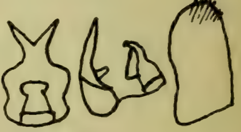

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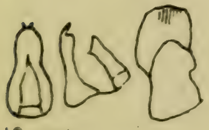

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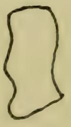

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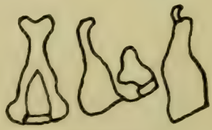

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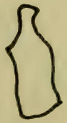
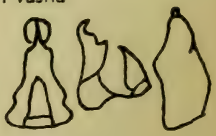
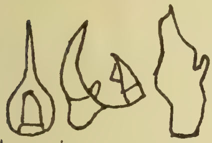


13. mirza



14. tabella

L.13. SABERA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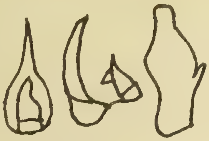
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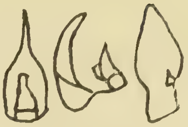
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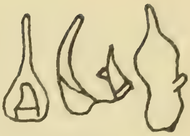
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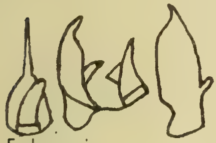
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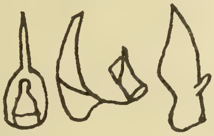
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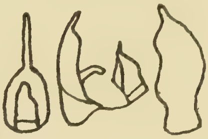
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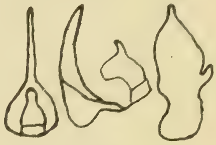
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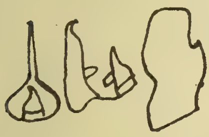
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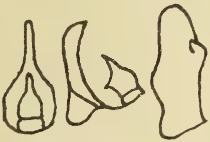
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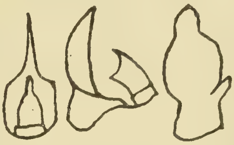
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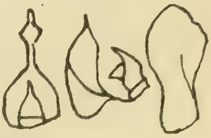
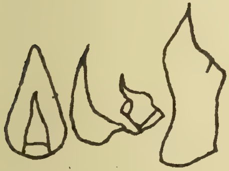

11. expansa

L.14. MIMENE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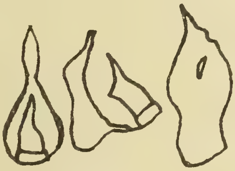
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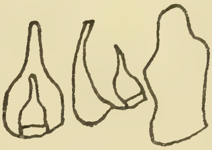
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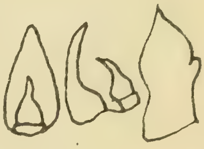
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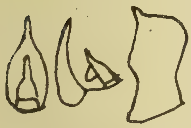
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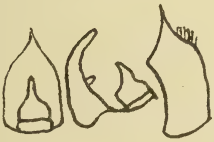
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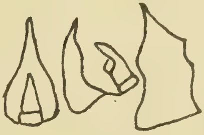
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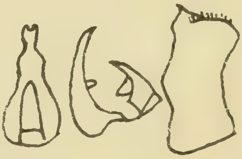
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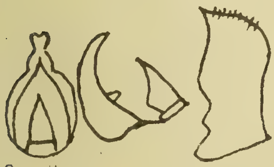
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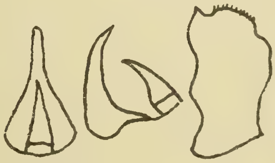
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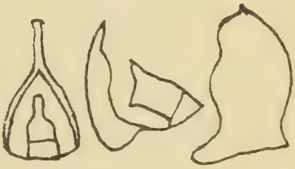
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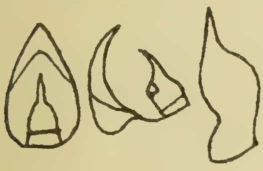
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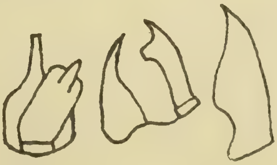
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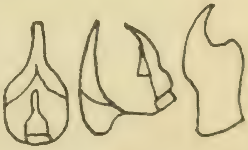
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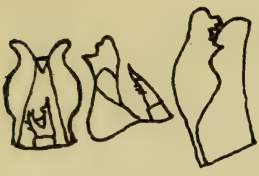

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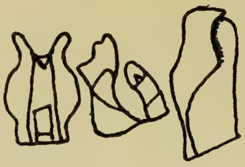

2. nostrodamus

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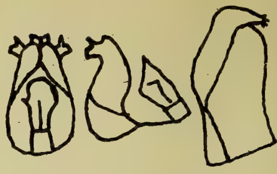

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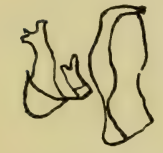

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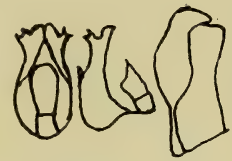

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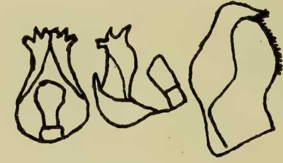

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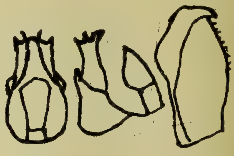

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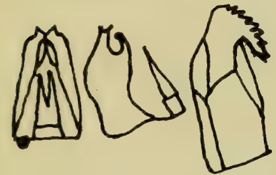

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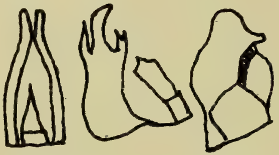

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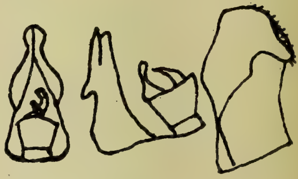

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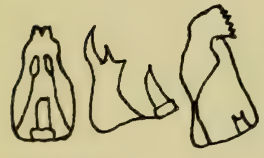

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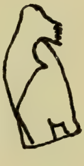
zelleri



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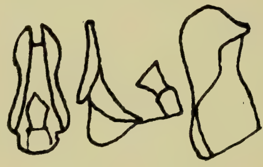

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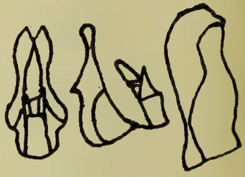

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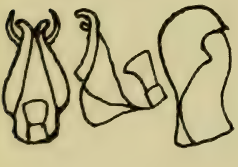

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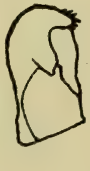

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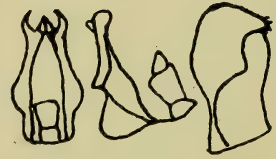

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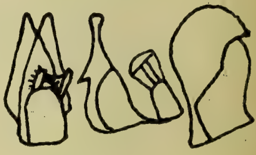

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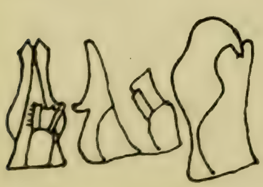

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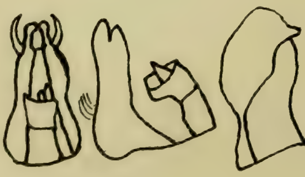

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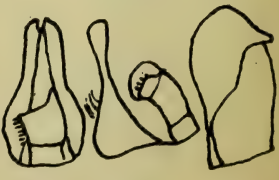

8. conjuncta

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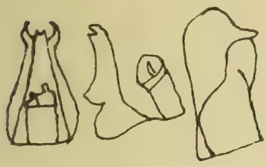

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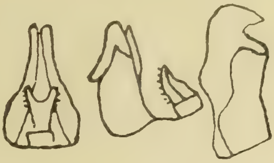

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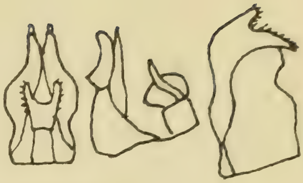

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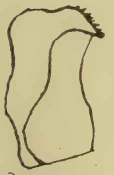

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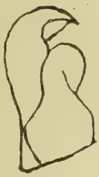

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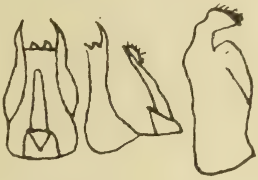

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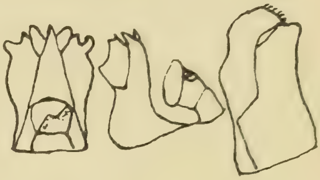

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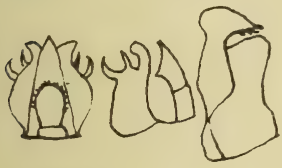

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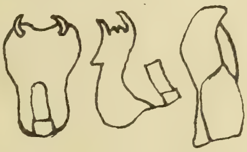

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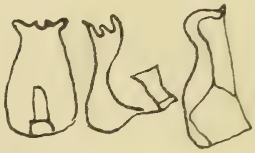

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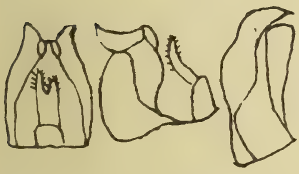

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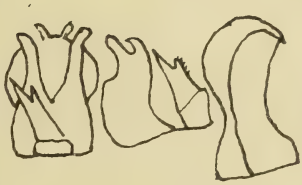

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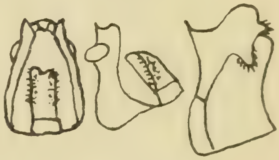

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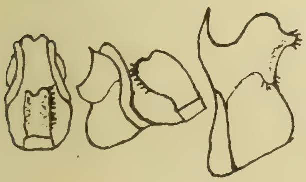

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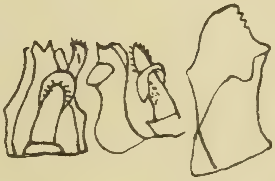

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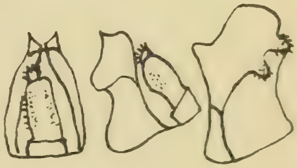

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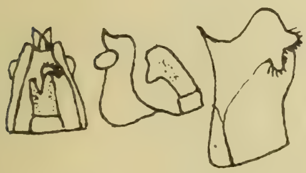

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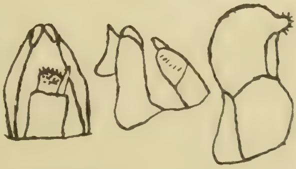

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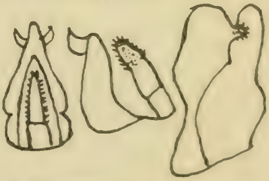

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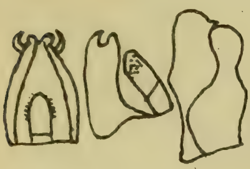

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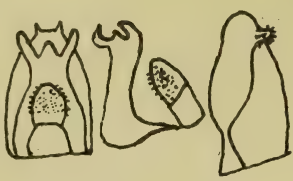

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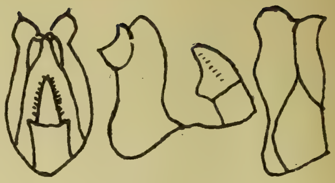

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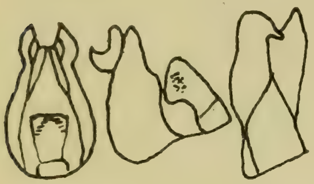

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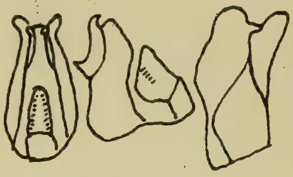

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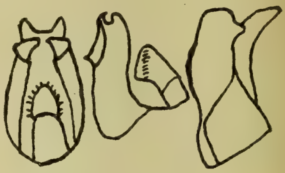

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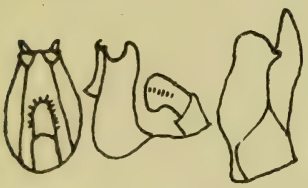

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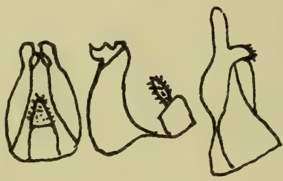

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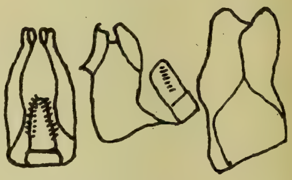

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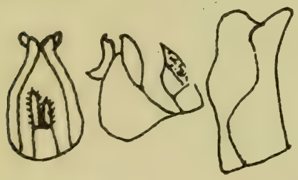

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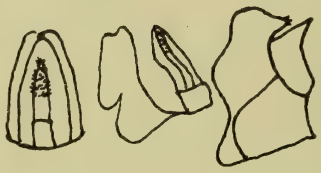

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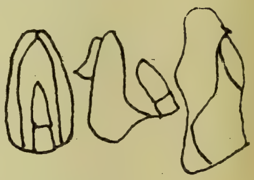

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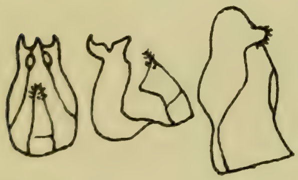

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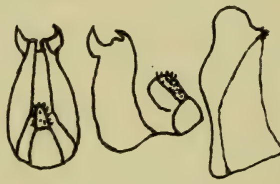

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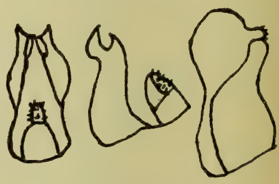

16. mehavagga

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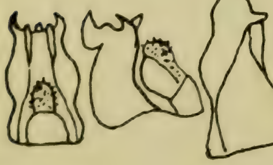

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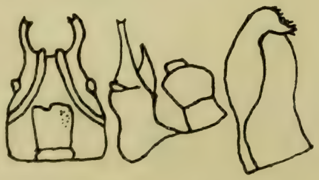

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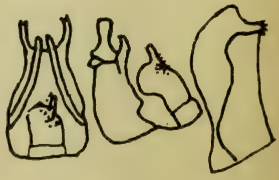

2. watsonii

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